

October 30, 2014

Sport Canada Research Initiative Conference



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2014 Sport Canada Research Initiative Conference

Agenda

Plenary Presentations

Poster Presentations

Conference Abstracts (In-Progress Projects)

Knowledge Transfer Papers (Completed Projects)

Agenda

Brookstreet Hotel
525 Legget Drive, Kanata, Ontario
Grand Scheme Ballroom

October 30, 2014

- 7:30 - 7:50** Arrivals and registration / Poster drop-off
- 8:00 - 8:10** Welcome
- 8:10 - 8:20** Opening remarks
- 8:20 - 10:15** Research presentations (Group 1)
- Marijke Taks - *Leveraging Sport Events for Sport Development*
- Mathieu Bélanger - *Monitoring Activities of Teenagers to Comprehend their Habits: The MATCH project*
- Steven Bray - *"They Believe I Can Do it?... Maybe I Can!" The Effects of Interpersonal Feedback on Relation-Inferred Self-efficacy (RISE), Self-efficacy, and Intrinsic Motivation in Children's Sport.*
- 10:15 - 10:35** Health break
- 10:35 - 11:45** Knowledge Transfer / Poster Lightning Round
- 11:45 - 12:35** Lunch break
- 13:35 - 13:15** Poster Visit
- 13:15- 15:05** Research presentations (Group 2)
- Jim Gavin - *Matching Activities to Personal Style (MAPS): Developing a Physical Activity Guidance System for High School Students*
- Kelly Carr - *The relationship between sport, physical activity, and social engagement: A profile of Canadian seniors*
- Peter Donnelly - *Sport participation in Canada: Evaluating measurements, and testing determinants of increased participation*
- 15:05 - 15:25** Health break
- 15:25 - 16:30** Fireside Chat - *The fear of concussions and its impact on sport participation*
- 16:30 - 16:50** Special Event
- 16:50 - 17:00** Concluding Remarks

2014 Sport Canada Research Initiative Conference

Plenary Presentations

- Taks, Marijke** *Leveraging Sport Events for Sport Development*
- Belanger, Mathieu** *Monitoring Activities of Teenagers to Comprehend their Habits (MATCH) Study*
- Bray, Steven** *“They Believe I Can Do it?... Maybe I Can!”*
- Donnelly, Peter** *Sport Participation in Canada: Evaluating Measurements and Testing Determinants of Increased Participation*
- Gavin, Jim** *Personality personal change and personalized fitness*
- Carr, Kelly**
(Presenting on behalf of Patti Weir) *The relationship between sport physical activity and social engagement: A profile of Canadian Seniors*

Social Sciences and Humanities Research Council of Canada / Conseil de recherches en sciences humaines du Canada

Sport Canada Research Initiative Conference

Leveraging Sport Events for Sport Development

Marijke Taks, University of Windsor (Canada)
 Laura Misener, Western University (Canada)
 Laurence Chalip, University of Illinois (US)
 B. Christine Green, University of Illinois (US)

University of Windsor | SCRI 2014



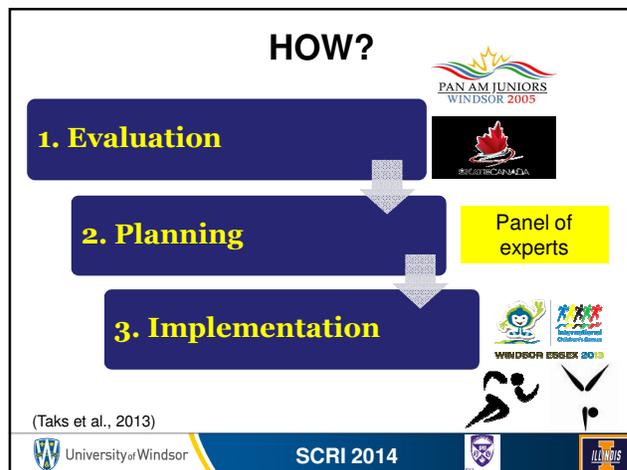
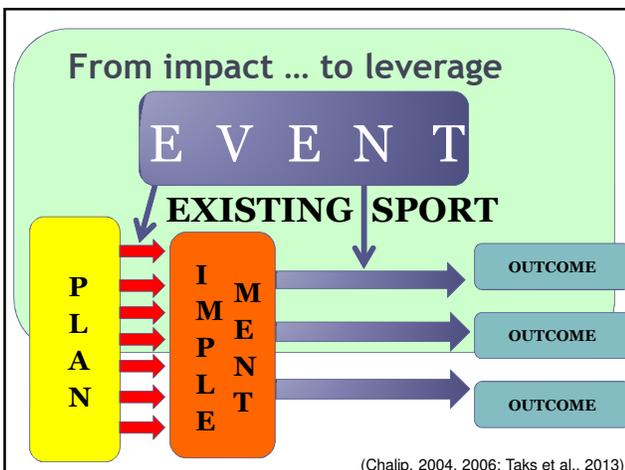
Canadian Sports Policy

Sport Canada is striving to establish Canada as a leading sport nation at home and abroad where all Canadians and their communities enjoy, value, and celebrate the benefits of active participation and excellence in sport (Sport Canada, 2013)





University of Windsor



Findings (1)

Sport events are unlikely to increase sport participation

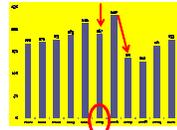


COACHING CLINIC
+

STADIUM
+

SCHOOL
?

DEMONSTRATIONS
?



FLYERS
?

(Taks et al., 2014)



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Findings (2)

There are opportunities to use events to generate sport participation

Figure 1: Model for event leveraging



(Green et al., in revision)



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Findings (3, 4, & 5)



- LSOs lack the necessary skills and resources
- LSOs have their ways of doing things
- Events can help LSOs to build their sport



(*)LSOs = Local Sport Organizations



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Practical implications and future research

PRACTICAL IMPLICATIONS

- Plan before the event
- Identify who is responsible
- Include in policies for hosting sport events

FUTURE RESEARCH: BUILD CAPACITY



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Monitoring Activities of Teenagers to Comprehend their Habits (MATCH) Study

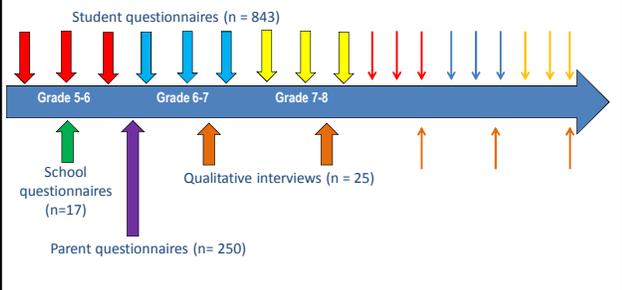
Mathieu Bélanger,
Jacinthe Beauchamp, Catherine Sabiston,
Jennifer O'Loughlin, Michelina Mancuso
October 30, 2014
Sport Canada Research Initiative Conference



Aim:

Generating a better understanding of how sport participation evolves during childhood and adolescence

Emphasis is placed on the stratification of analyses by sport type



Association between motives and types of sports practiced

	Organized	Non-organized	Group-based	Individual
Enjoyment	★			
Competence			★	
Social affiliation				
Health / Fitness				
Appearance				



Goguen-Carpenter et al.

Association between School environment and types of sports practiced

	Organized	Non-organized	Group-based	Individual
Infrastructures				
Rules				
Intramural activities				
Interscholastic sports				
Physical education				
Active transportation	★		★	★



Ward et al.

Relationship between types of sports practiced by parents and their child

	Youth	Parents	OR
Team sports and games	74%	27%	
Active recreation	84%	41%	
Physical leisure pursuits	82%	72%	
Fitness activities	81%	94%	
Rhythmic, movement and gymnastic activities	58%	6%	
Racket sports	28%	7%	★



Brunet et al.

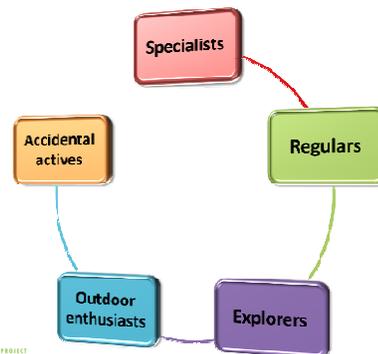
Perceived barriers to physical activity in adolescents

- Perceived barriers:
 - internal (*I am not interested in physical activity*)
 - external (*I need equipment I don't have*)
- Internal barriers = inversely related to moderate-vigorous physical activity (MVPA)
- External barriers = not related to MVPA



Gunnell et al.

Qualitative analyses: Sport participation profiles



Bélangier et al.

Output

- **Publications:**
 - 6 papers (published or submitted)
 - 4 papers in preparation
 - Many more planned
- **Personnel:**
 - 1 BSc
 - 6 MD students
 - 4 MSc
 - 1 Post doc
 - 3 Research assistants



Thank you!

- **Research assistants:**
Isabelle Caissie, Julie Goguen Carpenter, Jonathan Boudreau
- **Students:**
Stéphanie Ward, Jason Mackenzie, Julie Goguen Carpenter, Emilie Beaulieu, Marie-Claude Lavigne-Albert, Erin Wing, Tanya Scarapicchia, Katie Gunnell, Hervé Weka, Jessy Phillips, Jean-Philippe Deslauriers, Joël Gray
- **Co-investigators and collaborators:**
Anouk Utzschneider, Michelina Mancuso, Jennifer O'Loughlin, Catherine Sabiston, Jennifer Brunet, Jean-François Richard, Robert Vallerand



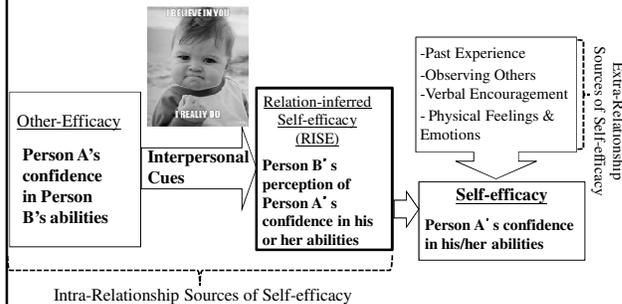
“They Believe I Can Do it?... Maybe I Can!”

The Effects of Interpersonal Feedback on Relation-Inferred Self-efficacy (RISE), Self-efficacy, and Intrinsic Motivation in Children’s Sport.

Steven R. Bray, Kathleen A. Martin Ginis, John Cairney
Deborah E. Marinoff-Shupe & Andrew J. W. Pettit
McMaster University



What is RISE?



From Lent and Lopez (2002)

Why Look at RISE in Children’s Sport?

- Consequences of RISE
 - Perceived Competence (self-efficacy)
 - Intrinsic Motivation
 - Participation & Performance
- Determinants of RISE
 - From Whom?
 - What Behaviour?



Objectives

- Phase 1: To explore children’s perceptions about the types of interpersonal communication that influence RISE.
- Phase 2: To investigate how providing children with RISE-relevant communication might affect their self-efficacy, intrinsic motivation, and behaviour.
- Phase 3: To examine:
 1. How sport coaches learn ways to deliver RISE-based communication in their interactions with sport participants
 2. The effects of RISE-based communication on children’s self-efficacy and intrinsic motivation in a sport environment.

Phase 1 Highlights

Saville, Bray *et al.*, 2014 *Journal of Sport & Exercise Psychology*

- Interviews with 61 (one-on-one) and 28 (focus group) youth sport participants
- Key Questions
 - Who are the people you feel have confidence in your abilities to do sports?
 - What do they do or what do they say to make you feel this way?
- Key Answers
 - Coaches, parents, siblings, peers
 - Verbal
 - “I believe you can do this”
 - “I know you will get it next time”
 - Non-verbal
 - Challenges, responsibilities
 - Demonstrations for peers



Phase 2 Highlights

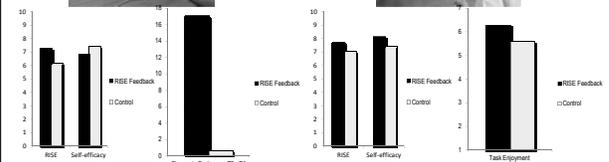
Bray *et al.*, in preparation

- 2 experiments
 - Encouragement vs. Encouragement + RISE communication

Effort-based Task



Skill-based Task

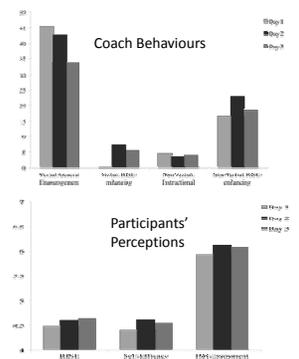


Phase 3 Highlights

Bray *et al.*, in preparation; Saville & Bray, submitted

Participants: 12 Sport Camp Coaches; 79 youth participants

- Days 1-3
 - Video/Audio recordings of coach-participant interactions
 - Participant surveys of RISE, self-efficacy & enjoyment
- RISE workshop at end of Day 1
- RISE Workshop Progression:
 - Defined RISE
 - Discussion of experience with RISE communication
 - Action planning ways to incorporate RISE-communication
 - Role-play activities
 - Take-home materials.



Summary & Implications

- RISE
 - is a common perception that can stem from coach-participant communication
 - has important consequences for self-beliefs, motivation, and behaviour
 - can be shaped through use of specific language and behavioural cues
- Caveats
 - RISE cues may need to be used selectively
 - Research limited to young, recreational sport participants
- Implications
 - RISE communication training may be a useful component in coach or educator training programs



Sport Participation in Canada:
Evaluating Measurements and Testing
Determinants of Increased Participation
SSHRC SRG No: 410 2006 2405

Peter Donnelly
Centre for Sport Policy Studies



Research goals

- To assess current measures of sport participation (Canada + 3 countries & EC)
- To propose a more valid and reliable measure of sport participation
- To test the assumption that inspiration → increased participation



1) Assessment of measures of sport participation

- *“survey research is the very worst way to measure sports participation — but it’s the best one I’ve seen yet!” (Harvey Lauer)*
- **NO SURPRISES:**
 - Need clear definitions
 - Need rigorous and consistent questionnaire development
 - Need to accurately determine intensity and frequency of participation [NB: recent CSEP guidelines]
 - Need in-depth demographic information on respondents

RECOMMENDATIONS:

PLAN A: Omnibus survey to establish baseline data / regional follow-ups

PLAN B: Piggyback onto major health surveys (80,000+ respondents)

* Ask about all activity, an impose definitions to categorize the data



2) NSOs / PSOs and sport participation measures

- NSOs/PSOs generally feel that they have good membership data (with limitations), but not good participation data
- Should NSOs/PSOs know how many Canadians are participating in the sport for which they are responsible (governing bodies of the sport, not just high performance)?
 - ideally, NSOs/PSOs should have this information
 - facilities / planning / barriers issues
 - CS4L tracking
 - re-establish a connected system of sport as per the Canadian Sport Policy

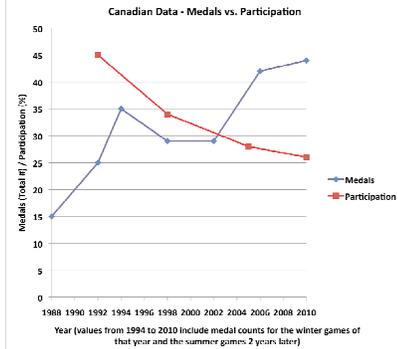


3) Inspiration is not enough

- Evidence of inspiration, but 'inspired' increases in participation are rare
- Given the limitations of measurement, would we even know if there had been an effect
- Our measurement and tracking systems are so inadequate that we are unable to tell if any new 'inspired' participants are net new participants, or whether they have left a previous sport to try the new sport
- Failure of capacity? Failure to sustain?
- **INTENTIONALITY:** need to plan and budget for increased participation in the same way that we plan and budget for success



The more medals we win (\$), the fewer Canadians participate in sport



Research Team (current affiliations)

- Yuka Nakamura *York University*
- Bruce Kidd *University of Toronto*
- Margaret MacNeill *University of Toronto*
- Jean Harvey *University of Ottawa*
- Barrie Houlihan *Loughborough University UK*
- Kristine Toohey *Griffith University AUSTRALIA*
- Kyoung-Yim Kim *Boston College USA*
- PI: Peter Donnelly peter.donnelly@utoronto.ca

Research Assistants:

- Simon Darnell
- Margaret MacDonnell
- Rosie MacLennan
- Cora McCloy
- Mark Norman



PERSONALITY, PERSONAL CHANGE AND PERSONALIZED FITNESS

Jim Gavin, PhD, ABPP, FACM

Professor - Applied Human Sciences

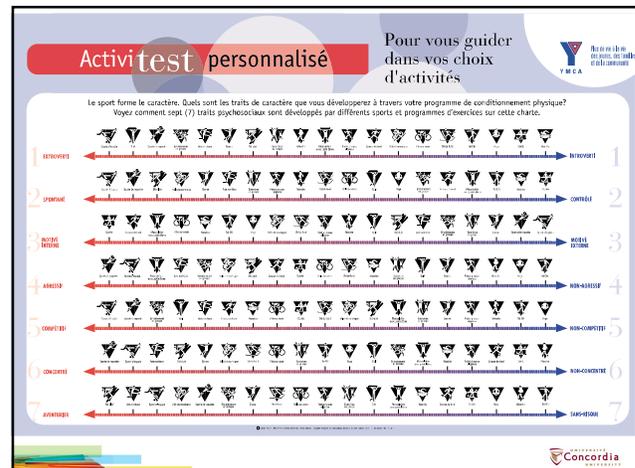
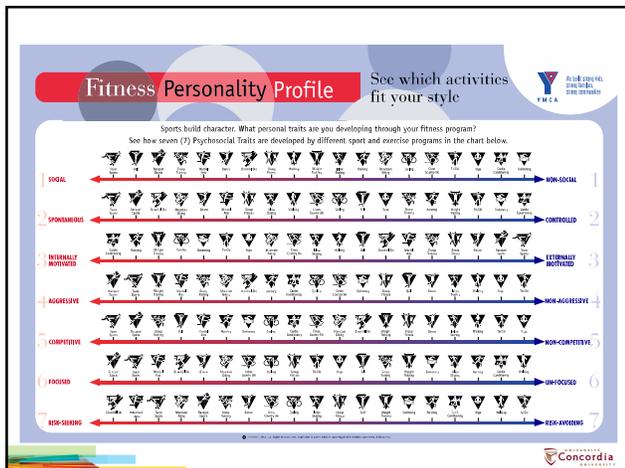
Director – Centre for Human Relations and Community Studies

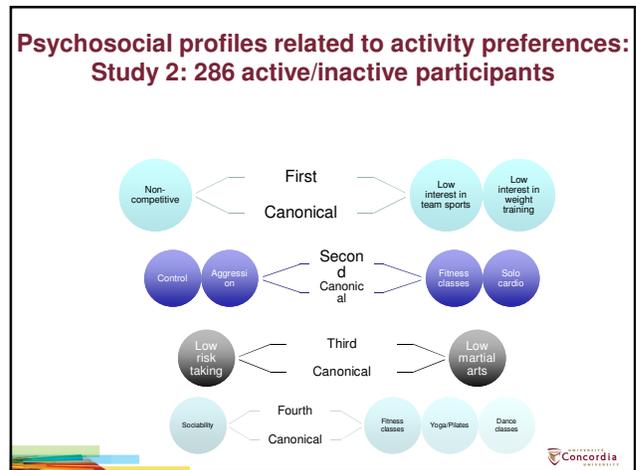
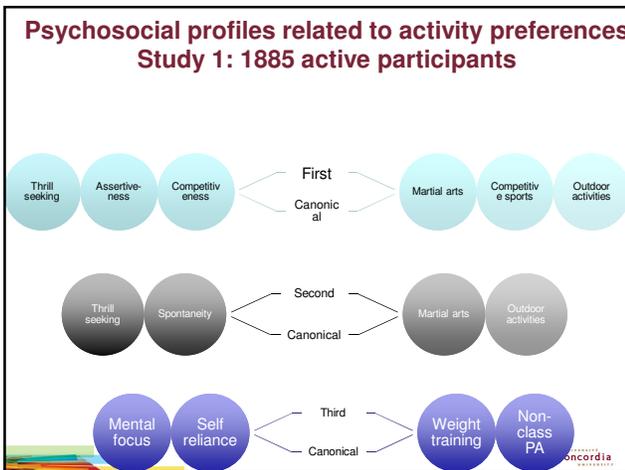
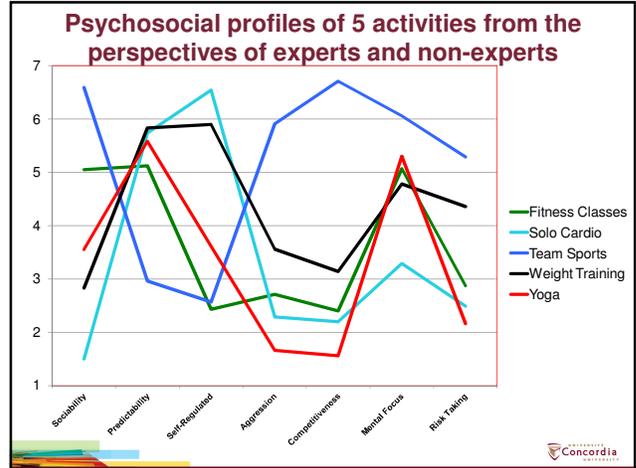
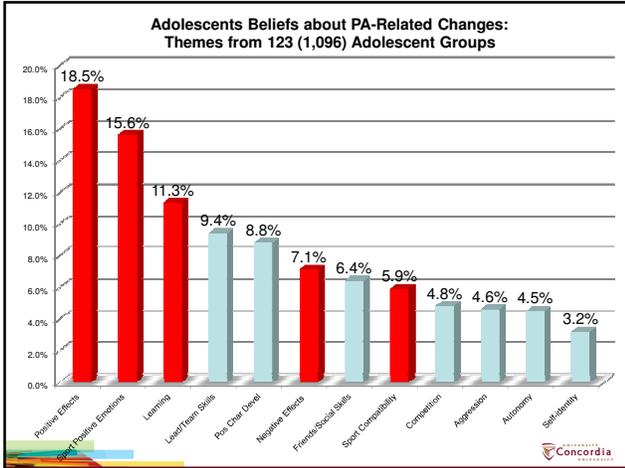
Concordia University

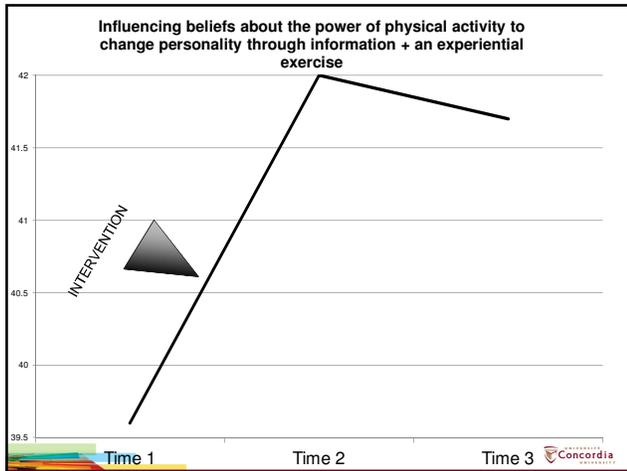
Intentions

Building Psychosocial Measures and Methods for the Creation of a Sport and Physical Activity Guidance System

1. Understanding the relationship of character (or personality) to involvement in different sports and physical activities
2. Appreciating whether sports and physical activities can be reliably understood in terms of their psychosocial demands on participants.
3. Assessing whether beliefs regarding the outcomes of regular physical activity involvement can be influenced so that individuals have another set of reasons (motives) for participation.







The relationship between sport, physical activity, and social engagement: A profile of Canadian seniors

Patti Weir¹, Sean Horton¹, Joe Baker²

¹University of Windsor, ²York University

Presented By: Kelly Carr

Student researchers: Jacqueline Liffiton, Kelly Carr, Kristy Smith, Alexandra Wiseman, Kelly Calhoun, Srdjan Lemez



What we know:

Successful Aging

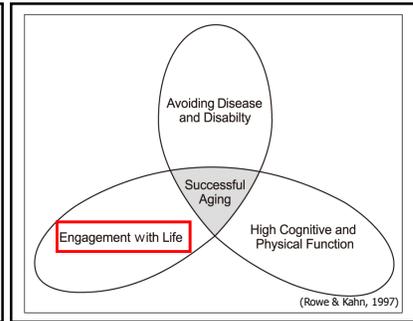
Aging-Well
(Chapman, 2005)

Positive Aging
(Bowling, 1993)

Healthy Aging
(Keating, 2005)

Robust Aging
(Garfein & Herzog, 1995)

Productive Aging
(Kerschner & Pegues, 1998)



What we know:

Engagement with Life

Regenerative Activities

Discretionary Activities

(Maier & Klumb, 2005)

Productive Activities

Consumptive Activities

Benefits of Engagement:

↓
risk of mortality
functional impairment
cognitive decline
depression/loneliness

↑
self-reported health
physical activity levels
life satisfaction
well-being/happiness



(Andrew, 2005; Bath & Gardiner, 2005; Bennett, 2005; Bourque et al., 2005; Hinterlong et al., 2007; Litwin, 2003; McAuley et al., 2000; Mendes de Leon, 2003; Menec, 2003; Murray & Crummett, 2010; Seeman et al., 2001; Thoits & Hewitt, 2001)

What we don't know:

How does the **frequency** of participation in different activities affect physical and cognitive functioning during older adulthood?



How and **why** do engagement profiles change during different decades of older adulthood?



Study 1: Engagement and Functional Health

Participants: 287 English speaking older adults (55-90 years)

Design: Survey quantifying (1) frequency of engagement, (2) physical function, and (3) cognitive function

Findings:



Highest % of activities

SOCIAL



Lowest % of activities

ACTIVE

High Frequency Activities

Passive-Leisure

- computer use

Productive

- light housework

Active-Leisure

- walking for fitness

 University of Windsor

Study 2: 'How' Engagement Profiles Change

Participants: 54 community dwelling older adults (65-97 years)

Design: 'Past' and 'present' engagement questionnaires

Findings:



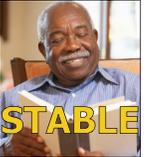
Productive Activities



STABLE
Social Activities



STABLE
Active Leisure



STABLE
Passive Leisure

 University of Windsor

Study 2: 'Why' Engagement Profiles Change

Participants: 42 community dwelling older adults (65-97 years)

Design: 6 focus groups and 16 semi-structured interviews

Findings:

Health	Death	Freedom	Desire	External Factors
				

 University of Windsor

Practical Implications

Important for community organizations to offer a wide variety of programming and engagement options for older adults

- Increase frequency of participation in *any* activity
- Freedom of time and choice to participate in desired activities in which they are capable

Focus on active-leisure activities

- Predicts improved physical functioning
- Capitalize on maintained social engagement



 University of Windsor

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Poster Presentations

Arellano, Alexandra	<i>Building Sustainable Sport Programs for Aboriginal Youth</i>
Baxter-Jones, Adam	<i>The role of growth and maturation on sports participation</i>
Beesley, Theresa	<i>Grappling for Answers: Exploring the process of psychosocial skills development in youth mixed martial arts athletes</i>
Benson, Alex	<i>Examining the use of socialization tactics in team sport environments</i>
Bianco, Theresa	<i>Coach Support of Injured Athletes and the Coach-Athlete Relationship</i>
Brunet, Jennifer	<i>Youth sport and body-related self-conscious emotions</i>
Camiré, Martin	<i>Teacher-coaches' influence on the global development of student-athletes: An examination of perceived dual role benefits and challenges</i>
Clark, Andrew	<i>Understanding Barriers to Sport in Hamilton</i>
Dixon, Jess	<i>Exploring Developmental Factors for Overcoming Relative Age Effects in Ice Hockey</i>
Donnelly, Peter	<i>Multiculturalism and Physical Culture: The case of the GTA</i>
Duarte, Tiago	<i>Promoting and assessing social learning in disability sport</i>
Falls, Dominique (unable to attend)	<i>Organized Youth Sport in a British Columbian Rural and Small-town Region: An Ethnographic Study</i>
Fraser-Thomas, Jessica	<i>Trickle down effect? Exploring the influence of the Olympic Games on preschooler development and sport participation</i>
Jewett, Rachel	<i>Understanding and improving body-related self conscious emotions in adolescent girls' sport</i>
Lemoine, Jean	<i>Motivational characteristics of adolescents who are dedicated to competitive sporting practices: Differences based on the type of sport and intensity of the practice</i>
Loughead, Todd	<i>Developing leadership behaviours in athletes</i>
MacMullin, Jennifer	<i>Family Matters: Predictors of Motivation for Sport Participation by Youth with Developmental Disability</i>
McEwan, Desmond	<i>Teamwork in Sport: A Framework for Increasing Sport Participation</i>

Misener, Laura	<i>Leveraging Parasport Events for Social Impact</i>
Nadeau, Luc	<i>Effects of a Response Strategy Based on an Understanding of the Game, Tactical Knowledge and Performance in Team Sports</i>
Neely, Kacey	<i>Coaches' Perspectives on the Deselection Process in Competitive Youth Sport</i>
Parent-Harvey, Caroline	<i>Factors effecting the relative age effect in NHL athletes</i>
Perrier, Marie-Josée	<i>The creation and reception of Paralympic Media: The 2014 Sochi Paralympic Games</i>
Shirazipour, Celina	<i>"Psychosocial constructs influencing parental support for youth with a mobility impairment's sport participation: A literature review"</i>
Snelgrove, Ryan	<i>Managing Sport Events to Maximize Positive Impacts</i>
Strachan, Leisha	<i>Project SCORE! A resource to help coaches deliver positive youth sport programs</i>
Trudeau, François	<i>Perception de l'implantation du DLTA selon le sport</i>
Weiss, Jonathan	<i>Thriving in Young Athletes with Autism Spectrum Disorder and Intellectual Disability</i>



Building sustainable sport programs for Aboriginal youth

This University-institution-community partnership collaborates in assessing the Promoting Life-skills in Aboriginal Youth (PLAY) program that provides recreation and play opportunities for children and youth from 57 First Nation Communities of Ontario

ALEXANDRA ARELLANO
Associate professor
School of Human Kinetics
University of Ottawa
aarellan@uottawa.ca



uOttawa

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The Role of Growth and Maturation on Sports Participation

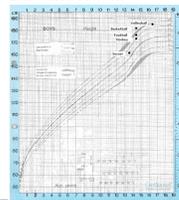
Baxter-Jones A.D.G., Earle, D., Barbour-Tuck, E., Murphy, J., Jackowski, S.A., Proctor W., Cumming, S.P., Knight, C., Sherrin, L.B.



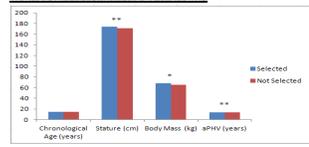
Participants

- Spring 2014 - 775 Athletes recruited (227 Hockey; 138 Soccer; 90 Basketball; 95 Football; 101 Volleyball; 74 Baseball)
- Measures of growth, maturation, reasons for sports participation, & athletes' perceptions of physical conditioning/competence, coach's attitudes and parental involvement
- Fall 2014 - First of 3 six-month follow-ups

Baseline Result



Male Athletes Selected into Teams



Metric	Selected	Not Selected
Chronological Age (years)	~10	~10
Stature (cm)	~175	~165
Body Mass (kg)	~65	~55
APHV (years)	~10	~10

Female athletes selected into teams showed similar results to males

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Theresa Beesley

York University

Grappling for Answers: Exploring the process of psychosocial skills development in youth mixed martial arts athletes



- Understanding the benefits, processes and mechanisms of positive youth development in mixed martial arts athletes

2014

Examining the use of Socialization Tactics in Team Sport Environments



> Purpose: To understand how to structure group member interactions in a way that promotes positive sport team entry experiences

Alex Benson, PhD student
Supervisor: Mark Eys, PhD

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COACH SUPPORT OF INJURED ATHLETES AND THE COACH-ATHLETE RELATIONSHIP



How do coaches and athletes rate their relationship and the support provided over the course of recovery?

Theresa Bianco, PhD
Department of Psychology



1 MONTH

SUPPORT NEEDED

SUPPORT PROVIDED

SUPPORT SATISFACTION



4 MONTHS

SUPPORT NEEDED

SUPPORT PROVIDED

SUPPORT SATISFACTION

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Youth sport and body-related self-conscious emotions

- Jennifer Brunet, PhD
Assistant Professor, University of Ottawa
- Projects summary:**
- Sport participation may foster experiences of body-related self-conscious emotions, which may either encourage or discourage youth from participating in sport over time. In this project, we assessed the extent to which sport participation influences various emotions in young girls and boys.



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Project Title: Teacher-coaches' influence on the global development of student-athletes: An examination of perceived dual role benefits and challenges



Martin Camiré
School of Human Kinetics University of Ottawa

Phase One Main Findings:

- Being a teacher-coach helps build relationships with students
- High density of interactions is key in nurturing relationships
- Being a teacher-coach enhances job satisfaction

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Understanding Barriers to Sport in Hamilton, ON



Andrew F. Clark & Darren M. Scott
Post-Doctoral Fellow, Western University
Funded by Doctoral Stipend while at McMaster Univ.

Key Findings: Research shows that accessibility to sport facilities and programs, an individuals dislike of sport, and time barriers are the primary barriers to sport participation.



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Exploring Developmental Factors for Overcoming Relative Age Effects in Ice Hockey

Jess C. Dixon,
Sean M. Horton,
Patti L. Weir,
Joe Baker, &
Stephen P. Coble



- *This research program will identify factors that may help relatively younger hockey players succeed in a developmental system that is biased against them.*

2014

Multiculturalism and Physical Culture: The case of the GTA



Peter Donnelly
Centre for Sport
Policy Studies

- The most multicultural city in the world likely has the most diverse range of physical cultural forms – sports, physical games, dance forms, martial arts and exercise systems; this project is cataloguing that physical culture, and attempting to answer theoretical questions about the life cycle of physical cultural forms as well as policy questions relating to sport participation and multiculturalism

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Promoting and assessing social learning in disability sport

The overall objective of this research is to work with coaches of different disability sports to understand the learning value created in their communities and networks.



Tiago Duarte,
University of Ottawa

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Trickle down effect? Exploring the influence of the Olympic Games on preschooler development and sport participation



- Jessica Fraser-Thomas
- Parissa Safai
- Peter Donnelly



2014



- University of Toronto
- Faculty of Kinesiology and Physical Education



Rachel Jewett
University of Toronto
Faculty of Kinesiology
and Physical Education

Understanding body-related self-conscious emotions in adolescent girls' sport

- The aim of the study is to identify and test predictors of body-related self-conscious emotions among adolescent girls participation in sport and test the relationships between these emotions and positive and negative sport outcomes

Sport Canada Research Initiative Conference

Motivational characteristics of adolescents who are dedicated to competitive sporting practices: Differences based on the type of sport and intensity of the practice

- Jean Lemoyne, Ph.D.(c)
- Department of human kinetics
- Université du Québec à Trois-Rivières




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Developing Leadership Behaviours in Athletes

Todd Loughead,
Gordon Bloom,
Krista Chandler,
and Mark Eys



- Using a longitudinal design, this research program will develop a full range of leadership behaviours in Canadian varsity athletes

2014

Family Matters: Predictors of Motivation for Sport Participation by Youth with Developmental Disability



- I am examining the family factors that predict sport participation for youth with developmental disability.

- Supervised by Dr. Jonathan Weiss at York University

Sport Canada Research Initiative Conference



- **Teamwork in Sport: A Framework for Increasing Participation in Sport**
- *Desmond McEwan*
- *University of British Columbia*
- **Assessing how teamwork affects participation in sport**



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Leveraging Parasport Events for Sustainable Community Participation





- To examine how the hosting of different forms of sport events for persons with a disability are being leveraged to create opportunities for community participation, and influence community attitudes towards disability.




- Compare and contrast social legacy tactics, strategies, and programs (**Interviews, document analyses**)
- Analyze spectator, volunteer, and community members' attitudes and awareness of disability (**Scale of attitudes survey**)
- Framework for leveraging parasport events to benefit community participation opportunities, and influence attitudes

2014

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Sport Canada Research Initiative (SCRI) Conference 2014

Effects of a Response Strategy Based on an Understanding of the Game, Tactical Knowledge and Performance in Team Sports




Luc Nadeau, Ph.D.
Associate Professor
Physical Education Dept.

Denis Martel, Ph.D.
Professor
Physical Education Dept.

Sport Canada Research Initiative Conference

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Kacey C. Neely

Faculty of Physical Education & Recreation, University of Alberta

Coaches' Perspectives on the Deselection Process in Competitive Youth Sport

This study describes the deselection process from coaches' perspectives and provides some useful insights into how coaches may carry out the deselection process and communicate deselection decisions to female adolescent athletes.

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Factors affecting the relative age effect in NHL athletes



Caroline Parent-Harvey

Affiliated with McGill

- Based on a cross-sectional study of the 2011-2012 roster, the relative age effect does not exist currently in the NHL.

2014

The creation and reception of Paralympic media: The 2014 Sochi Paralympic Games



Marie-Josée Perrier
McMaster University

- Mainstream media concerning the 2014 Games predominantly focused on athleticism and skill, a purposeful representation by writers. Participants appreciated this focus, but also wanted more general information about the Paralympic sports, as well as the training background of the athletes.

Sport Canada Research Initiative Conference

Psychosocial constructs influencing parental support for youth with a physical impairment's sport participation: A literature review



- Presenter: Celina Shirazipour
- Affiliation: School of Kinesiology & Health Studies, Queen's University
- Summary: Gaps are identified in current research on parental support for the sport participation of youth with a physical impairment. Four key agenda items are presented for future research in order to further knowledge for both researchers and practitioners.

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Managing Sport Events to Maximize Positive Impacts



Ryan Snelgrove
University of Windsor



A study of how small-to-medium sized sport events can be managed to build sense of community, facilitate tourism activity, create unique spectator experiences, and ultimately create more sport opportunities in a community

2014



- Drs. Leisha Strachan, Dany MacDonald, & Jean Côté
- University of Manitoba, UPEI, and Queen's University
- Project title: Project SCORE! (www.projectscore.ca) is an online resource to help coaches deliver positive youth sport programs in a series of 10 lessons. Research is currently underway to examine youth sport experiences and coaches' perceptions of the program. This program highlights the importance of deliberate delivery in promoting positive youth development in sport.

Sport Canada Research Initiative Conference

François Trudeau
 Université du Québec à Trois-Rivières

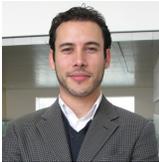


Comparison of the determining factors in adopting the Long-Term Athlete Development (LTAD) model for Canadian athletes among coaches from various sport disciplines

- The purpose of this investigation is to determine the process for the adoption and implementation of the Long-Term Athlete Development (LTAD) model by coaches of various sports: soccer, ice hockey, figure skating, gymnastics and cross-country skiing. Some differences were noted, namely in the knowledge of the model and the ability to apply it in the particular sport. However, the level of belief in the benefits and effectiveness is identical among all the coaches.

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Sport Canada Research Initiative (SCRI) Conference 2014



- Jonathan Weiss, Ph.D., C.Psych.
- York University, Dept. of Psychology
- Sport Participation for Youth with Intellectual Disabilities (SPY-ID)
- The SPY-ID Project aims to identify factors that lead to involvement and retention in sport for youth with intellectual disabilities.

2014

Sport Canada Research Initiative Conference



Sport Canada Research Initiative Conference
October 30, 2014
Kanata, Ontario

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ADAMS, CARLY

University of Lethbridge

Standard Research Grants 2011

Imagining Community: Women's Ice Hockey, High Performance Sport, and Rural Survival in Southern Alberta

Canada is becoming increasingly urbanized with small rural communities subject to amalgamation or threatened by decline. Statistics Canada data indicates that by 1931, for the first time in Canadian history, more citizens (54%) lived in urban centres than rural communities. By 2006, this percentage had reached 80%. This demographic shift has serious ramifications for small rural communities struggling to survive. For Warner, a Southern Alberta agricultural-based community of approximately 380 persons, a unique strategy was adopted to imagine a sense of community and to allow its residents the choice to remain 'in place' (Whitson and Epp, 2001). Located 65 km south of Lethbridge, the rural village was threatened with the potential closure of the consolidated Kindergarten to Grade 12 school (ages 5-17). Citizens were determined to save their school, and the community as a whole, through the sport of ice hockey. By 2003, the Warner vision of an imagined community, to paraphrase Benedict Anderson (1983) came to include images of a high performance female hockey school, with its out-of-town players attending the local school. Warner is representative of many rural Canadian communities in that its citizens have always had to be sensitive to issues of survival and to seek innovative solutions to defend against community decline. What is unique about Warner is the creation of a high performance hockey school as the primary innovation to save its school, and implicitly the town itself. Thus this research has as its focus, the Warner Hockey School as the site to explore the social determinants that led to the establishment of the school, its purposes, both imagined and actual, and the underlying role that high performance sport might play in rural community survival. We are now in the second phase of this study, conducting ethnographic interviews with Warner School and Warner Hockey School staff, community members, and past players.

ADAMS, CARLY

University of Lethbridge

2005 (Completed KT paper was not required)

Sport and Female Community in London, Ontario 1920-1951

At the turn of the 20th century in London, Ontario community sport initiatives came as a response to increasing industrialization, urban expansion, and growing commercial distractions, which prompted middle-class reformers to campaign for urban parks and supervised playgrounds to provide children with ‘respectable’ amusements (Hall, 2002). Through their participation in playgrounds and city sport leagues, girls and women challenged notions of gender and female physicality, while exploring recreational activities, building lasting friendships and learning new physical skills—an experience that for many set the groundwork for decades of community sport involvement.

Emphasizing the notion that all historical sources are inextricably linked to social power, this study weaves together oral accounts, newspaper reports, pictorial depictions of sport, and available archival materials while simultaneously considering not only what information these sources provide but also how the information is delivered and the variety of meanings embedded in each source. Evidence presented in this study suggests that women’s sport during the first half of the twentieth century was a unique social space for women. It was certainly more than a voyeuristic form of entertainment for male spectators (Lenskyj, 1996; Lenskyj, 1989). The municipal playgrounds and industrial diamonds, for example, were physically empowering spaces where the athletic skills and abilities of girls and women were practiced, developed, and celebrated.

Exploring both geographical and relational notions of community, this study positions individual, everyday experience as central to our understandings of interactions between work, play, and social life. Investigating municipal playground programs, women’s industrial softball leagues, the London Girls’ Softball and Basketball leagues, and the London Supremes women’s fastball team, this study explores the construction of historical memory, asking why and how women explain, rationalize, make sense of, and apply meaning to their life experiences within specific social and cultural contexts (Sangster, 1997). The complexities of these experiences ultimately impact and shape how we come to understand and theorize women’s sport involvement of the past and the impacts it has on future policies and practices.



ARELLANO, ALEXANDRA

University of Ottawa

T. Forneris, C. Gaudet, J. Harvey, J. Kope, E. MacIntosh

Standard Research Grants 2011

Building Aboriginal Sport Programs for Aboriginal Youth

The Promoting life-Skills in Aboriginal Youth (PLAY) program uses sport and play as a vehicle for health promotion and to support communities to achieve positive goals. The program is partly funded by the Ministry of Aboriginal Affairs of Ontario and is implemented and managed by the international organization Right To Play. This study is part of a SSHRC/Sport Canada funded research that is based on a University-organization-partnership. Years of study are highlighting the successes and challenges of the rapidly expanding program that started with 2 communities in 2010, has now reached 57 participating communities in Ontario and is now expanding to communities from Manitoba province. Several studies are being conducted examining different aspects of the initiative, from different disciplinary lenses. This poster will present an overall synthesis of the practical implications of the program assessment to date and propose to think critically about what it means to promote and measure “sport participation” in the some of the partner First Nation communities.



BALISH, SHEA

Dalhousie University

C. Blanchard, D. Rainham

Doctoral Stipend 2012

Talk is Cheap, but Behaviour is Expensive: Testing the Intuitionist Model of Health Behaviour

Converging lines of evidence suggest that intuitions (automatic, non-reasoned, inclinations) powerfully influence health behaviour. Accordingly, we offer the Intuitionist Model of Health Behaviour (IHB), which we argue can (1) explain existing evidence, (2) integrate disparate theory and findings, and (3) offer novel and worthwhile hypotheses for studying the psychological mechanisms that regulate health behaviour. The IHB centers on the idea that the mind is composed of distinct psychological systems that follow an evolutionary logic as they strategically guide behaviour toward distinct, and sometimes competing, goals. These systems produce intuitions that selectively use reasoning (just as a carpenter uses a tool) to achieve distinct goals. This project involves developing the IHB, including falsifiable predictions involving both experiments and interventions, and then testing these predictions in both laboratory and real-world settings.

BAXTER-JONES, ADAM

University of Saskatchewan

**D. Earl, E. Barbour-Tuck, J. Murphy, S.A. Jackowski, W. Proctor, S.P. Cumming, C. Knight,
L.B. Sherar**

Standard Research Grants 2012

The Role of Growth and Maturation on Sports Participation

Sport initiation and sustained participation are influenced by a large number of physical and psychosocial factors. One potentially important determinant is variations in adolescent growth and biological maturation. The primary research objective of this study is to examine the relationships among maturity status, age, and physical size on being successfully selected into provincial youth soccer, basketball, volleyball, football, baseball and hockey teams. The second objective is to identify the consequences of selection on long term participation. The study was initiated in the fall of 2013, baseline data collection commenced in early January 2014 and follow up measures started in August 2014. Follow up measures will occur at 6 month intervals for 2 years. Data being collected includes measures of anthropometry, maturity status, reasons for sports participation, perceptions of physical conditioning, competence, their coach's attitudes towards them and parental involvement. As of September 2014, 775 athletes (611 males, 164 females) have been recruited into the study. At baseline it was found that 70% of male athletes (average age 14.6 years) were above the 50th percentile for height and 25% above the 90th percentile. In contrast, in females (aged 14.5 years) it was found that 74% were above the 50th percentile and 41% were above the 90th percentile. Distribution of birth dates revealed 62% and 55% of male and female athletes, respectively, were born within the first six months of the year compared to Saskatchewan birth records over the same period which showed 50% born in the first 6 months. Comparisons between male athletes selected and not selected for teams found that those selected were significantly taller, had greater body mass and greater predicted adult stature and were more mature ($p < 0.05$) than those not selected. In contrast, in females only final predicted height was significantly different between those selected and not selected. These results suggest at 14 years of age that growth and maturation plays a more important role in sports team selection in males than in females.

BEESLEY, THERESA

York University

J.L. Fraser-Thomas

Doctoral Stipend 2013

Grappling for answers: Exploring the process of psychosocial skills development in youth mixed martial arts athletes

Extensive literature suggests that sport is an effective context for facilitating positive youth development (PYD) (Danish et al., 1992; Fraser-Thomas et al., 2005; Gould & Carson, 2008). Mixed martial arts (MMA) is a combat sport that has been promoted by anecdotal sources as offering an optimal context to promote PYD through life skills development – skills which can in turn transfer to general life. In Canada, martial arts is among the top ten most participated non-scholastic sports by Canadian youth (Clark, 2008). This research project will explore the process of life skills development of youth participating in MMA. Firstly this study will identify the life skills MMA clubs in Southern Ontario suggest they are developing in youths (age 9-18) through a content analysis of MMA club websites and promotional material. The second objective is to examine the experiences of MMA athletes, in comparison to other athletes and non-athletes, to gain insight into the life skills youth may be developing through their MMA experiences. The third objective is to explore the role of MMA instructors, parents, and peers in the development of youths' life skills. The final objective is to examine the transferability of life skills that youth learn in MMA into general life contexts. The final objective is particularly important given that anecdotal sources suggest MMA participation automatically leads to the development of psychosocial skills and transfer of life skills into general life, yet past research suggests that transferability of life skills from the sport context to general life is minimal (Holt, Tink, Mandigo & Fox, 2008), This study has the potential to identify and assess the psychosocial benefits to participation in MMA sport, and gain a deeper understanding of how MMA programming, trainer education, and coaching in youth MMA contexts can best optimize PYD, at a time of rapid growth in youth participation in the sport.

BENSON, ALEX

Laurier University

Doctoral Stipend 2013

Towards a Theory of Organizational Socialization in Sport

Whereas the cooperative nature of sport may imbue feelings of social connectedness and a strengthened sense of social identity among teammates (Bruner et al., 2014), newcomers are also entering a complex and often competitive status hierarchy (Jones & Wallace, 2005). This environment can expose newcomers to feelings of social exclusion (Larson, Hansen, & Giovanni, 2006), hazing (Waldron, Lynn, & Krane, 2011), and negative social comparisons (Brown, Ferris, Heller, & Keeping, 2007). In the interest of understanding how to foster more enjoyable group environments for team sport participants, the purpose of this work is to examine how group member interactions can be managed in a way that facilitates positive entry experiences for athletes.

In the first phase of research, semi-structured interviews were conducted with twelve coaches and twelve athletes involved in Canadian Interuniversity Sport teams to explicate which socialization tactics are employed during the integration of newcomers into existing team sport settings (Benson, Evans, & Eys, 2014). The second phase of research, currently underway, aims to build upon the conceptual basis generated in the foregoing qualitative work by developing a questionnaire to assess athletes' perceptions of sport team socialization tactics. To date, we have generated an initial set of questionnaire items and refined these items through the use of think-aloud interviews with athletes as well as an expert panel review. In the fall of 2014, we aim to distribute the questionnaire to a sample of 400-500 Canadian Interuniversity Sport athletes to assess the relationship between sport team socialization tactics and athletes' perceptions of the group (e.g., cohesiveness, met expectations). Our newly designed questionnaire that assesses sport team socialization tactics provides a promising tool to empirically distinguish how to structure athletes' initial group experiences in a way that optimizes sustained enjoyment and participation in sport.



BIANCO, THERESA

Concordia University

Insight Development Grant 2014

Coach Support of Injured Athletes and the Coach-Athlete Relationship

The coach-athlete relationship is an important determinant of sport performance and athlete well being. It can also play a significant role in rehabilitation and recovery. Sport injury is an event that can create a strong need for coach support and if athletes feel unsupported during this time, it can put a strain on the coach-athlete relationship. This, in turn, can adversely affect recovery and future athletic performance. The aim of this study is to shed light on the link between coach support and the coach-athlete relationship in the sport injury context. Coach and injured athlete pairs will be followed over a four-month period and asked to complete questionnaires assessing social support and the quality of their relationship at two different time periods (1 month and 4 months post-injury). The coach and athlete data will be matched in order to determine the extent of agreement between the two perspectives. The interdependence between coach support and the quality of the coach-athlete relationship will also be analyzed. It is expected that the study will yield valuable insights into the coach support needs of injured athletes and lay the groundwork for effective coach support interventions in the sport injury setting. Effective interventions can help improve the injury experience for athletes and also get them back to performance and competition more quickly and ready to meet the demands of competition.

BILINSKI, HOPE

University of Saskatchewan

T. McHugh, U. Teucher, C. McCallum

Insight Development Grant 2014

Rural children and their communities leading the way toward the enhancement of sports and recreation

Participation in sports contributes to children's sense of self-belonging and confidence, help develop and maintain positive peer relations, and hone team-working skills. While virtually every Canadian community has some form of organized sport available for children, participation is declining. The purpose of the study is to engage rural communities and specifically rural preadolescent children in the development of research questions that are relevant and meaningful to exploring their participation and commitment to sport and other recreational activities.

The study objectives:

- 1) To understand the children's experience and engagement in the participation of sport
- 2) To discover from the children's perspective, those factors that should be incorporated into future research aimed at exploring sport in children
- 3) To discover the most appropriate methods for engaging children in research processes

This study will be guided by the concepts embedded in community development and building community capacity that include: 1) articulation of the issue, 2) gathering of stakeholders to create a commitment to action, 3) formal and informal consultations, 4) mobilization of knowledge, 5) planning of action, and 6) implementation of initiatives.

Three rural areas within Sask Sport's Sport, Culture and Recreation Districts will serve as the study's geographical setting. The recreational directors for the sites will act as experts in the area of sport delivery for rural communities and provide links to children living in the rural communities. Research design decisions will be made collaboratively with Sask Sport and the participating children. The study will consist of focus group interviews with children ages 10-12. The general approach to questioning will revolve around the children's experiences with sport participation and what they hold meaningful by staying committed to their sport/s. Transcriptions from the focus groups will be analyzed using content analysis, which will enable the researcher to uncover meanings as this process unfolds.



BLODGETT, AMY
Laurentian University
Doctoral Stipend 2012

The Relocation Experiences of Aboriginal Athletes Pursuing Sport Dreams

Research has documented the importance of sport in the lives of Aboriginal people, emphasizing how it can improve health and wellness and reaffirm core cultural values and connections (Lavallee, 2007; Reading, 2009). However, there is a lack of knowledge around the experiences of Aboriginal people who are engaging in sport, as well as the cultural issues that affect their participation (Findlay & Kohen, 2007). The need remains to better understand these participants' experiences so that, in keeping with the objectives of *Sport Canada's Policy on Aboriginal Peoples' Participation in Sport*, more informed efforts can be made to support Aboriginal athletes through culturally sensitive strategies. To this end, the current project explored the relocation experiences of young Aboriginal athletes who had moved off reserves in northeastern Ontario to pursue sport opportunities within "mainstream" (Euro-Canadian) communities. Mandala drawings and conversational interviews were employed as part of a decolonizing methodology that centralized local Aboriginal ways of knowing, and that enabled in-depth experiential accounts to be shared (Smith, 1999). An inductive thematic analysis was used to organize the data around three overarching themes: (1) the benefits of relocation, (2) the challenges of relocation, and (3) strategies for facilitating relocation. The findings provided novel insights into how the sport experiences of relocated Aboriginal athletes are shaped by the dynamics of acculturation, or second-culture learning. It was revealed how relocated athletes have to dynamically (re)construct a sense of identity and belonging from shifting positions in and between dual (Aboriginal and Euro-Canadian) cultural contexts. Implications are gleaned for supporting relocated Aboriginal athletes in their dual cultural contexts and facilitating more meaningful acculturation experiences that are conducive to sporting persistence and success.

BURKE, SHAUNA

The University of Western Ontario

A.V. Carron, K.M. Shapcott

2005 (Completed KT paper was not required)

Development of a Team-Referent Attribution Questionnaire

Within the sport psychology domain, attribution theory is considered to be one of the most influential contemporary avenues for the study of athlete motivation (Biddle, Hanrahan, & Sellars, 2001). A basic tenet of attribution theory is that individuals have an inherent need to understand *why* an event occurred with a view to increasing control over future events. As would be expected, judgements pertaining to the *why* of an objective or subjective success or failure can vary widely. However, theoreticians such as Weiner (1985, 1986) have suggested that the explanations advanced in achievement situations generally are of four types: personal ability, personal effort, opponent ability, and luck. Further, Weiner (1985, 1986) proposed that these explanations can be classified along three dimensions: *locus of causality* (extent to which causes are seen as either residing within or outside); *stability* (extent to which causes are seen as either stable or variable over time); and, *controllability* (extent to which causes are seen as regulated by either the focal target or others).

Considerable research has demonstrated that the types of attributions endorsed can influence affect, cognitions, and behaviour (Biddle et al., 2001). For example following a failure, an attribution to low effort is associated with dissatisfaction and shame, and an attribution to stable and internal causes is associated with both lowered efficacy beliefs and reduced adherence behaviour (Biddle et al., 2001). From a sport team dynamics perspective, attributions represent a complex interplay between collective and personal perspectives. That is, there are at least five types of attributions possible in team sports: (a) the individual athlete provides self-referent explanations for personal performance; a coach (or team leader) advances an explanation or explanations for the performance of (b) an individual athlete and/or (c) the team; (d) the group as a single entity provides a collective explanation for team performance; and (e) individual athletes advance personal explanations for their team's success or failure. The majority of research in sport has been undertaken at an *individual level* (i.e., Type (a) above) focusing on athletes' self-referent attributions for personal performance. To date, no research has examined collective explanations for team performance (i.e., Type (d) above) and research on team-referent *group level* attributions (i.e., Type (e) above) for team performance has been limited (Biddle et al., 2001).

One reason for the dearth of research on team-referent attributions is the absence of a conceptually and psychometrically sound questionnaire. Specifically, the current team attribution questionnaire most commonly used (Causal Dimension Scales for Teams, CDS-T, Greenlees et al., 2005) is a simple adaptation of a self attribution questionnaire (Casual Dimension Scale II, CDSII, McAuley et al., 1992). It is not conceptually sound from a group perspective. Also, other questionnaires used to study team attributions have been criticized for having poor psychometric properties (Biddle et al., 2001; Crocker, Eklund, & Graham 2002). Not surprisingly, perhaps, theoreticians in sport psychology have called for the development of a conceptually and psychometrically sound instrument to assess team-referent attributions (Rees, Ingledew, & Hardy, 2005).



Our research team has completed three phases in the protocol generally used to develop a sound questionnaire (Shapcott et al., 2007). In Phase 1, we used athletes ($n = 246$) as active agents to establish the typical attributions advanced to account for team success and failure. In Phase 2, we used these results as well as attribution and psychometric theory to develop a preliminary questionnaire. In Phase 3, we tested the content validity of our questionnaire using both group dynamics and attribution theory experts ($n = 16$).

The present research program is designed to further develop our team-referent attribution questionnaire. In the first project (currently underway), we are testing its psychometric properties (i.e., factor structure and internal consistency). In the second project, we will examine the predictive validity of the questionnaire. The third project will consist of a team-oriented intervention program designed to modify maladaptive team attributions.



CAMIRÉ , MARTIN

University of Ottawa

T. Forneris

Insight Development Grant 2013

Teacher-coaches' influence on the global development of student-athletes: An examination of perceived dual role benefits and challenges

Adult leaders in sport can exert considerable influence on young athletes (Gould & Carson, 2008) but this influence is most often mediated by the quality of the relationship that is formed between both parties. In Canada, high school sport represents a favourable context in which teacher-coaches have the opportunity to form meaningful relationships with the over 750 000 student-athletes who practice sport in this setting (School Sport Canada, 2013). Teacher-coaches are defined as teachers, by profession, who volunteer their time to coach sport teams in their school. The current study represents the first of two phases of the grant and the purpose was to examine high school teacher-coaches' perspective on how their dual role influences the development of relationships with student-athletes. A total of 25 teacher-coaches (20 men, 5 women, M age = 37.0 years, age range: 25-56 years) from Ontario and Québec took part in semi-structured interviews (M = 69.8 minutes, range: 50-102 minutes) which were audio recorded and analysed using thematic analysis procedures. Results indicated how participants believed the dual role of teacher-coach was advantageous because it allowed them to interact on a consistent basis with students in numerous school contexts. These recurrent interactions were deemed key in nurturing relationships that teacher-coaches believed allowed them to exert a positive influence on students. Being a teacher-coach helped increase the participants' job satisfaction, positively influenced their identity, and allowed them to foster the development of student-athletes.

DALLAIRE, CHRISTINE

University of Ottawa

J. Harvey

2005 (Completed KT paper was not required)

The Games and the Reflection of Youth Identities in the Canadian Francophonie

This comparative research focuses on Francophone minority and majority identities emulated by youth participating in Canada's Francophone and Quebec Games. 1) It begins with a study of **discourse on Francophone identities** at the Games. The Fédération de la jeunesse canadienne-française (FJCF) created the Jeux de la francophonie canadienne to instil a sense of belonging among Francophone youth and thus counter the growth of language transfer and support the development of minority communities. These Games gather adolescents from Francophone minority communities, as well as young Quebec athletes. How do they define "Francophone" in a gathering that includes youth from minority communities as well as from a majority community that controls a provincial government? The Jeux du Québec fall under Quebec's policy on sports and recreation and help build a distinct cultural identity, that of the "Quebec nation." Do these Games, held solely in French, promote a cultural or linguistic and civic identity of the Quebec nation? The analysis will also cover the federal and Quebec governments, which support and finance these Games for reasons of identity building and sport development. Lastly, the study will cover youth discourse on identity. Is theirs a reflection of prevailing discourse or do they define themselves differently? How are the identities of Francophone minority youth linked to Quebec youth at the Jeux de la francophonie canadienne? 2) The study also covers **the convergence of discourse on identity and on sport**. To what extent do sports promote the reflection of Francophone identities at these Games? The proposed research will address the complementarity or conflictual linkage between the Games' sports and identity goals. 3) The third objective of this research is **to evaluate the benefits that youth claim to derive from their participation in the Games**. What benefits do they think they derive from the Games? Do the Games spur their Francophone pride? Do they benefit in a particular way from the gathering and sociability of youth? Do the Games improve their sports performance or encourage the practice of sports?

This study is a continuation of the work undertaken to answer the question "Who is a Francophone?" It will also assess the benefits that youth derive from their participation in the Games. It will examine their motivation as well as their experience in the Games. The analysis will lead to an assessment of the benefits for the participants as well as the contribution of the Games to the promotion of sports. These results will be useful to organizers in improving the organization of the Games. They will be used by decision-makers and policy-makers to better understand and consider the various dimensions of the impact of youth participation in the Games. This project will thus contribute to the study of sports and identity policies, as it approaches the issue from a new angle by focussing on the identities emulated by youth in these political contexts.

DAWSON, MICHAEL

St. Thomas University

2005 (Completed KT paper was not required)

Sport, Empire, and Nation: A Comparative History of English-Canadian Identity, 1930-1994

When, how, and why did English Canadians largely abandon the British connection in favour of an independent national identity? The past few years have witnessed a revival of interest in this important question. To contribute to these ongoing debates, this study examines expressions of English-Canadian identity within the context of international sport – the British Empire/Commonwealth Games held between 1930 and 1994. The project will provide insights into English-Canadian nationalism in four ways. First, while much of the recent literature on the topic focuses on political, and in particular, foreign policy issues, this study will examine *popular culture* through the lens of modern sport. Second, by examining the tensions between imperial and national identity in English Canada between 1930 and 1994 the project employs an innovative temporal scope that examines developments over an extended time period. Third, I tackle the relatively unexplored relationship between commercialism and English-Canadian national identity by examining the myriad ways in which economic pursuits affected expressions of imperial and national sentiment. Finally, through international comparative work focusing upon Australia and New Zealand, this study asks whether there was anything particularly “Canadian” about English-Canadian identity during this transition.

Taking its cue from the emerging literature on the “British World” the project explores the particularities of English-Canadian nationalism through direct comparisons with two other “white settler” societies: Australia and New Zealand. All three of these dominions endured awkward attempts to reformulate official and unofficial expressions of national identity in light of the collapse of the British Empire in the second half of the twentieth century. While a handful of important studies have begun to examine the commonalities between the three countries’ responses to decolonization at the level of international diplomacy, no systematic comparison has been undertaken that focuses on popular culture. The Commonwealth Games provide an ideal topic for comparing the transformation of English-Canadian identity with similar transformations occurring elsewhere in the “British World.” Since their inception, the Games have remained inherently political. Originally termed the British Empire Games, this athletic competition was initiated in Hamilton in 1930 to revive both Victorian ideals of amateur sport and the battered confidence of British and white dominion athletes who were losing ground to American competition. As the British Empire was reinvented as the Commonwealth of Nations, the Games emerged as a political arena in which disputes raged over race relations, third-world underdevelopment, and competing ideals of British identity. This project, then, will tell a Canadian story that cannot be separated from the international context.

It examines how English Canadians reacted to the tensions that emerged as the Games expanded to include non-white Commonwealth nations. It explores the extent to which popular, or vernacular, pronouncements about the Games have embraced, challenged, and appropriated the official rhetoric of imperial, and then Commonwealth, unity. And it investigates the manner in which English Canadians took stock of the cultural, social, political, and economic legacies of the Games. I will also examine



French-Canadian evaluations of the Games' significance in order to contextualize English-Canadian sentiments. But primarily I will explore these themes by placing Canadian developments in an international context. Comparing the Games held in Canada (Hamilton, 1930; Vancouver, 1954; Edmonton, 1978; Victoria, 1994) not simply with each other, but also with the Games held elsewhere especially in Australia (Sydney 1938; Perth, 1962; Brisbane, 1982) and New Zealand (Auckland, 1950 and 1990; Christchurch, 1974) – provides an important opportunity to uncover both the unique and common features of English Canada = s changing relationship to the British Empire and Commonwealth.



DE LISIO, AMANDA

University of Toronto

Doctoral Stipend 2012

Preserving spaces of uncertainty: Bioremediation, urbanism and the sport mega-event

If the urban condition, its architecture, landscape and design, can offer a text to examine, the text of cities is in constant flux. The staging of a sport mega-event will exacerbate this state in the construction of new, ultramodern sporting facilities. More often than not, as the literature will attest, event-related construction will demand the removal of infrastructure (whether natural or wo/man-made) from host cities. The site of a new stadium will be forced to become what McKee (2008) in his article on the local restoration of New Orleans, post-hurricane Katrina, would describe as an “ecological tabula rasa,” a return to the backside of heavily designed, controlled and scripted spaces of everyday life. Even the soil, the mineral foundation of the site, is often in need of careful bioremediation to erase the (so-called) impurities of the past. In their piece entitled, “1440: The smooth and the striated” (1987), Deleuze and Guattari describe striated space as that which is typical of the highly-organized urban environment we (in)voluntary navigate daily – comprised of orderly, grid-like patterns of rectilinear, tall and grey buildings, networks of closed-circuit cameras, police patrols and private security guards (Malin, 2007). Nevertheless, as Deleuze and Guattari indicate, even the most striated of urban space can create opportunities for smoothness. Graffiti-writing, skateboarding, parkour, littering, pollution and decay: all constitute a rupture, a moment in which we bear witness to the fanatical maintenance of social order and realize our existence as both the steward and co-tenant. Mega-event-led urban renewal – and the barren, derelict and un(der)developed space it will (re)territorialize within our cities – can offer us a moment to envision the world outside the homogeneous and prescriptive nature of our urban environment. And within our current political economic state, it is this moment/space, we need.



DIXON, JESS

University Of Windsor

Standard Research Grants 2012

Exploring Developmental Factors for Overcoming Relative Age Effects in Ice Hockey

Relative Age Effects (RAEs) are concerned with identifying age (dis)advantages relative to other children within pre-defined age groups. While intended to promote equality and fairness through the maintenance of general developmental similarities, age-based grouping policies in sport and educational systems have had the unintended consequence of advantaging relatively older children, while disadvantaging relatively younger children within the same cohort. Relative age effects in sport and education tend to endure, resulting in an accumulated advantage that could have important implications for overall development (Murray, 2003). Despite the advantages provided to the relatively older, a significant proportion of relatively younger children persist in sport and education systems that are systematically biased against them. Moreover, there is evidence that relatively younger athletes who “survive” these systems may be superior performers (Ashworth & Heyndels, 2007; Baker & Logan, 2007). It is the experiences and developmental outcomes of this relatively younger sub-sample of athletes that we will be examining in this research program.

The purpose of this research program is to investigate the accumulated advantage of RAEs amongst Canadian male ice hockey players (16-20 years of age) in hopes of identifying solutions for reducing or eliminating their effects. To this end, we are executing a multi-phase research program that seeks to: a) identify the attributes of success and developmental outcomes (e.g., leadership) in Canadian junior-aged hockey players within the context of RAEs; b) compare the attributes of relatively younger and older hockey players; c) identify the developmental factors that helped relatively younger athletes overcome the effects of the RAE, and; d) share the outcomes with relevant stakeholders through an action research intervention. The sport of ice hockey has demonstrated a consistently fruitful avenue for exploring the RAE (Cobley et al., 2009) and was chosen by the research team as an appropriate context for this research.

DOHERTY, ALISON

Western University

K. Misener, Hoyer

Insight Grant 2013

The Role of Social Capital in the Organizational Capacity of Community Sport

The capacity of community sport organizations (CSOs) to deliver quality, accessible programs in the community is critical to addressing the significant decline in Canadians' sport participation (*Canadian Sport Policy 2012*). Social capital is one resource that CSOs may draw on to achieve their goals and objectives. Social capital refers to the trust and reciprocity that may be produced when individuals and groups work together (Bourdieu, 1986), and which may have further implications for individual, group, and organizational performance (Payne et al., 2011; Putnam, 2000). This research program investigates the social capital that may be generated among sport volunteers working together, and its role as a resource for CSOs to achieve their goals and objectives. The objectives of the multi-study research program are:

- 1) To explore the nature and development of social capital among volunteers in CSOs;
- 2) To determine the relationship between social capital and organizational capacity in CSOs, as indicated by individual, group and organizational performance; and,
- 3) To investigate bonding and bridging social capital (among individuals who are very similar and very different, respectively) in CSOs in depth.

The development and utilization of social capital in this context will be examined with a critical lens (Arai & Pedlar, 2003; Frisby, 2005) in order to uncover the range of social connections and thus social capital that may exist.

In order to generate a foundational understanding of the nature, mechanisms and impact of social capital among volunteers in the CSO context, personal semi-structured interviews with volunteer board members and coaches (the primary decision makers and front line program delivery agents) from a variety of CSOs are underway. The findings of this study will shape a framework for the subsequent survey investigation of the nature and extent of social capital within community sport volunteer boards. One purpose of that study is to examine social capital as a group-level phenomenon.

The ongoing research program is expected to inform policy and action for building CSO capacity with regard to social capital. Understanding the development and impact of social capital has implications for fostering connections among volunteers that generate positive resources, such as trust and reciprocity, that enhance individual, board and ultimately organizational performance focused on program and service delivery for sport participation.



DONNELLY, MICHELE
University of Southern California
Post-Doctoral Stipend 2011

Riding, Community, Segregation: Exploring Girls-only Skateboarding Programs

Using ethnographic research methods, I am studying girls-only skateboarding programs that offer skateboarding instruction to girls of varying ages and skill levels. Program instructors are typically all girls and women, and are sometimes professional skateboarders. Often, girls-only skateboarding programs organize workshops, camps, and events in gender-segregated settings, i.e., girls-only days and times at the skatepark or street riding location. On their websites and in promotional materials, girls-only skateboarding programs refer consistently to their aims: more opportunities for girls to skateboard, making skateboarding more accessible to girls, developing girls' skateboarding skills, creating a safe and positive environment for girl skateboarders; and their outcomes: confidence, empowerment, support, community. The consistency of language employed across girls-only skateboarding programs suggests common understandings of the current context of skateboarding in North America (an activity dominated by boys and men), and the perceived necessity of programs for girls only. Through this research, I seek to use girls-only skateboarding programs as an empirical site to understand the contemporary existence of girls-only leisure activities, and the relevant meanings and context of these specific cultural practices.

DONNELLY, PETER

University of Toronto

B. Kidd, M. MacNeill, Je. Harvey, B. Houlihan, K. Toohey

Sport participation in Canada: Evaluating measurements, and testing determinants of increased participation

How many hockey players are there in Canada? Although Canadians might believe that such information is readily available, that is not the case for hockey, or a number of other sports. While it may be relatively easy to determine the number of Canadians involved in bobsleighbing or luge, the numbers involved in more popular sports such as soccer, golf, swimming, skiing (downhill and cross country), baseball (in its various forms) and basketball is more difficult to determine.

Determining valid and reliable means of assessing participation in sport and physical activity is justified in both academic and applied terms. For the purposes of academic research, such data are necessary to understand the development of social and cultural capital, and the processes of social inclusion and exclusion. For the purposes of evidence based public policy, federal, provincial and territorial governments in Canada are agreed on the importance of an active, healthy population, and have developed policies and embarked on a variety of initiatives in order to increase the activity levels of citizens. However, there are no reliable baseline data, and no systematic measures to determine the success of policies and programmes designed to increase participation, or to evaluate the circumstances that might lead to increased participation.

Since sport policy and public expenditure on high performance sport is in part justified, implicitly or explicitly, on the assumption that international success in a sport will lead to increased participation levels in that sport, it is important to determine the circumstances under which such an outcome might be achieved.

The study has two overlapping objectives: (a) to assess the current measures of sport participation in Canada, and propose more valid and reliable measures; and (b) to carry out a test of one aspect of sport policy based on the assumption that Olympic medals lead to increased participation in sport. Specifically, the study involves:

1. Cataloguing and evaluating current measures for determining the number of participants in selected sports; comparing measures of sports participation in Canada with measures in several other countries; and determining if there are available and reliable measures of the frequency and intensity of participation in various sports;
2. Determining if there are available and reliable measures of the demographic characteristics of participants in specific sports;
3. Proposing, on the basis of these evaluations: a cost-effective, consistent, valid and reliable model to establish baseline data for participation in selected sports; an estimate of cut-off points for frequency and levels intensity to achieve physical health benefits in selected sports; and a demographic profile of participants in specific sports (as a test of social and cultural capital, and an assessment of barriers to participation); and

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4. Carry out a test, based on available data, of the circumstances and assumptions that form the basis of one current public policy intended to increase participation in sports.

DONNELLY, PETER

University of Toronto

Insight Grant 2012

Multiculturalism and physical culture: The case of the GTA

The growing critique of multiculturalism policies in many countries where they have been implemented prompts this return to the source. The first policy of multiculturalism was introduced in Canada in 1971, and Stein (2007) points out that “Canada is unique among western democracies in its constitutional commitment to multiculturalism – a commitment that has worked extraordinarily well in practice.”

Article 27 of the Canadian constitution (1982) states that “the Charter [of Rights and Freedoms] shall be interpreted in a manner consistent with the preservation and enhancement of the multicultural heritage of Canadians;” and multiculturalism was accepted into law with the passage of the Canadian Multiculturalism Act in 1988. The Act reinforced the importance of multiculturalism as a key instrument in government efforts “to bolster social cohesion and build an inclusive society that is open to and respectful of all Canadians.”

Previous and current research from the Centre for Sport Policy Studies at the University of Toronto suggests that multiculturalism does not promote ‘ghettoization’ or limit integration and social cohesion. Rather, diverse cultural practices, including sport, appear to enable immigrant and diverse communities to “find their feet” in a new society. The physical cultural practices of immigrant communities follow several trajectories: *first*, such practices survive for the first generation, but are not adopted by the second generation who engage in more integrated activities; *second* such practices are sustained as the first and second generations begin to include participants from other ethnocultural communities. In fact, the only examples we have found where exclusive participation has continued beyond a first generation involve private ‘country club’ sports (e.g., golf) that historically based their membership on racial/ethnic, religious, and social class exclusions.

This paper provides examples of the ways in which ethnocultural communities organizing and participating in physical cultural practices become involved in a more integrated form of community building; and outlines the SSHRC-funded research project that is testing the claims made here, and adding some new lines of research.



DUARTE, TIAGO
University of Ottawa
Doctoral Stipend 2014

Promoting and assessing social learning in disability sport

The Canadian Sport Policy (2012) has recently recognized the necessity to design barrier-free and relevant sport programming customized for “traditionally underrepresented and/or marginalized populations to actively engage in all aspects of sport participation” (p. 10). The lack of knowledgeable coaches is one barrier that ‘disables’ Canadians with disabilities from participating in sports (Canadian Sports Centres, 2012; DePauw & Gavron, 2005). The overall objective of this research is to work with coaches from three Para Sports (e.g., athletics, wheelchair curling, swimming) to promote and assess the learning value created in their communities and networks. The project is divided into two phases aiming to map the social learning context of the participants (Phase 1), and to assess the learning value created through social interactions in their networks and communities (Phase 2). The research question guiding the study is “How can the social learning capability of disability sport organizations be leveraged through the promotion of learning networks and communities?”. A collaborative inquiry approach (Bray et al., 2000) seems appropriate as it takes into consideration both researcher and participants interests. Data will be generated through interviews and participant observations. Each of the three coach groups (one per sport) will involve between five and eight individuals. An initial interview will enquire about their coaching biography as well as their existing networks and communities. During the 12 month intervention, which will involve different learning activities driven by the needs of the groups (e.g., have an expert on planning present at a meeting, have coaches share best practices and collaboratively problem solve), two further interviews will be conducted with the participants. A final interview will be conducted at the end of the intervention. The data gathered will be analyzed using thematic analysis as proposed by Braun and Clarke (2006). This analysis will be on-going, with subsequent interviews guided by previous interviews. The knowledge gained by the research will inform National Sport Organizations and the National Coaching Certification Program of avenues to stimulate coaches for this specific population, allowing people with disabilities to have larger access to quality sport experiences.

DUBUC-CHARBONNEAU, NICOLE

University of Ottawa

Doctoral Stipend 2008

Addressing Varsity Athletes Burnout and Well-being through the Implementation of a Feel-based Self-regulation Intervention

Varsity athletics can represent the peak of an athlete's competitive career. Playing on a college or university team can provide numerous health and social benefits (Miller & Kerr, 2002). However, due to numerous athletic, academic and social demands, varsity athletes may also have elevated level of stress (Gould & Whitley, 2009). It is suggested that the stress that can result from an athlete's inability to cope with demands can contribute to the development of burnout (Gustafsson, Kenttä, & Hassmén, 2011; Raedeke & Smith, 2004) and have negative repercussions on the quality of athletic experiences as well as the students' academic and personal life (Dubuc, Schinke, Eys, Battocchio, & Zaichkowsky, 2010). Thus, it has been suggested that the examination of potential interventions to prevent and reduce burnout is warranted (Goodger, Gorely, Lavallee, & Harwood, 2007). As a result, the purpose of the current study was to develop and implement a person-centered, feel-based self-regulation intervention with student-athletes experiencing burnout. Based on their moderate to high baseline scores on the Athlete Burnout Questionnaire (Raedeke & Smith, 2001), eight of 147 varsity athletes from various sports at two Canadian Universities were invited and chose to participate in a season-long intervention. A mixed-methods approach (Hanson, Creswell, Plano Clark, Petska, Cresswell, 2005) was used to assess the process and effects of the intervention. Specifically, quantitative results revealed that as the intervention progressed, the athletes' ability to self-regulate and their level of psychological well being increased significantly and that stress and burnout decreased. Furthermore, qualitative findings revealed that frequent stressors included academic demands (e.g., exams, assignments, performance outcomes), sport demands (e.g., performance standards, scheduling), and social demands (e.g., pressure from coach or family). Adaptive self-regulation strategies put forth to cope with stressors included cognitive strategies (e.g., acceptance, focus), organizational strategies (e.g., manage schoolwork, time management), physical strategies (e.g., rehabilitation, sport specific training), and social strategies (e.g., communication, removing oneself from negative situations).

FALLS, DOMINIQUE

Simon Fraser University

Doctoral Stipend 2011

Organized Youth Sport in a British Columbian Rural and Small-Town Region: An Ethnographic Study

My project looks to problematize our current understanding of youth, sport and community in Canadian rural and small town (RST) regions. Young people in small towns are the most likely to be sports participants – more so than their rural and urban counterparts. However, counting the number of participants does little to tell us how young RST region participants experience sport and what conditions exist in their communities that contribute to their experiences. The main source of data for this project is drawn from exploratory ethnographic research in an RST region in south central/eastern British Columbia, Canada. The project considers adult *and* young people's experiences of youth sport in this particular region with ethnographic observation and interviews with both groups being the primary source of data gathered. To date, 24 unstructured interviews (10 boys, 14 girls) with kids aged 12-19 have been conducted, along with 63 unstructured interviews with adults (30 men, 33 women). Interviewees are either involved in sport directly (e.g. player, coach, referee, administrator), indirectly (e.g., parent) or not at all. Those individuals not involved in sport were asked to participate because of their direct involvement with youth in other capacities (e.g. youth centre leaders, principals). The goal of the overall project is to critically examine and move beyond some of the taken-for-granted 'truths' around youth sport in RST communities – 'truths' that have been based on limited or anecdotal data. Most notably, an argument will be made that by looking 'beyond the ice rink' we can learn a lot about how contemporary young people are growing up in and experiencing their local RST communities *through* and *beyond* sport. Preliminary findings suggest that hockey is playing a much different and possibly diminished role in communities than previously argued.

FORTIER, KRISTINE

Laval University

S. Parent

Doctoral Stipend 2014

Development and Validation of a Questionnaire on Violence Against Youth in Sports

Based on current knowledge of violence against youth in sports, there is: **(a)** sexual, physical and psychological violence perpetrated by adults in positions of authority (Alexander et al., 2011; Brackenridge et al., 2008; Hartill, 2009; Kerr, 2010); **(b)** violence among peers, such as intimidation, physical assaults during sport, homophobia, and abusive initiation rituals (Demers, 2010; Fields et al., 2007; Gendron et al., 2011); and **(c)** other forms of violence such as sport-related work carried out by young elite athletes (David, 2005; Donnelly, 1997). This violence comes at a high cost to society as it has a significant impact on the lives and well-being of young participants (Leahy et al., 2008). Despite the presence of certain forms of violence in sports, there is very little information currently available on the extent and characteristics of the latter. Some are still unknown (ex. sport-related work carried out by young elite athletes). Also, in almost all cases, each form of violence was studied in isolation. This results in fragmented literature, which does not lend itself to estimating the overall extent of violence against youth in sports. Furthermore, in the vast majority of cases, the participants in past studies are adults and they are asked about what they experienced before they were 18 years of age (Leahy et al., 2002; Vanden Auweele et al., 2008). These methodologies raise concerns about the validity of the results, in that the participants may not have good memories and there may be some discrepancy between what they perceived and what in fact happened.

The general objective of the study is therefore to develop and validate a questionnaire on violence against youth between 12 and 17 years of age within a context of sport.

FRASER-THOMAS, JESSICA

York University

P. Donnelly, P. Safai

Standard Research Grants 2011

Trickle-down Effect? Exploring the Influence of the Olympic Games on Preschooler Development and Sport Participation

What we do and don't know ...

The Olympic Games offer a social and cultural event with the potential to influence young children's sport participation and development. A popular assumption among the public, politicians and policy makers is that the Olympic Games have a 'trickle down effect', positively influencing sport involvement and promoting pro-social norms such as fair play at the grassroots level. While research has not strongly supported the trickle down effect, there has been no examination of this effect in young children, arguably the most influenced. ***The purpose of this study was to explore the role of the Olympic Games in facilitating preschoolers' development.***

How we addressed the research question...

Data was collected in the spring/summer of 2012 just prior to the Olympic Summer Games in London, England. Participants included 6 childcare providers, 17 parents of preschoolers, and 36 preschoolers (ages 2-4) at eight childcare centres in Ontario. Childcare providers and parents engaged in interviews focused on exploring preschoolers' sport participation patterns, development through sport and physical activity, and the potential influence of the 2012 Olympic Games on preschoolers' overall development. Children engaged in focus groups where drawing was used as a tool to facilitate conversation related to play, sport, and the Olympics. All audio data was transcribed verbatim and examined through content analysis (Patton, 2005); all visual data was captured through photo documentation.

Preliminary results...

Preliminary results suggest substantive differences in perceptions across parents and childcare providers regarding the potential role of the Olympic Games in facilitating preschooler development. Many childcare providers and parents perceived the upcoming Games as a unique backdrop for teaching important life lessons and values around work ethic, perseverance, cooperation, and competition. Some parents discussed their intention to watch the Olympic Games with their children, while having meaningful discussions triggered by situations that would arise through the Games. Similarly, some childcare providers talked about building learning opportunities into their curricula on themes such as role models, diverse forms of physical activity, global exposure, national identity, and winning/losing. In contrast however, many parents and childcare providers dismissed the possibility of such learning opportunities, suggesting that preschoolers would be too young to process, understand, or internalize such concepts. Very few preschooler participants had any awareness or knowledge of the Olympic Games, but many had been exposed to professional sports or organized community sports, and viewed sports as competitive organized games.



Next steps in contributing to enhanced sport participation ...

In the spring/summer of 2013, one year after the Olympic Summer Games in London, participants once again engaged in interviews and focus groups, focused on the same research question. In addition, 50 parents completed surveys on their preschoolers' physical activity and sport participation patterns at two time points (Spring 2012, Spring 2013). These data are currently being analyzed and will be presented at SCRI 2015. It is anticipated that post-Games data will further enhance current data to provide a more comprehensive understanding of the potential of the Olympic Games to facilitate preschoolers' physical and psychosocial development. Findings will offer preliminary insight into how major games may be used as a tool to enhance sport participation and healthy personal and social development among this youngest demographic.



GAUDREAU, PATRICK

University of Ottawa

M. Fecteau, V. Franche

Standard Research Grants 2009

The Role of Parents and Coaches in Predicting Consequential Sport Participation Outcomes: A Daily Training Diary Study

An important goal of this research program is to investigate the role of parents and coaches in predicting consequential sport participation outcomes of adolescent athletes. Past research has found that parents and coaches can positively influence athletes by giving them choices, by recognizing their feelings and perspectives, as well as by providing them with opportunities for autonomy and self-initiative (Mageau & Vallerand, 2003). Little is known about whether parental (PAS) and coaching (CAS) autonomy support have cumulative and/or complementary influences on the sport participation of adolescent athletes (Gaudreau et al., 2011). Training is a significant part of the lives of athletes during which most of the athlete-coach interactions are taking place. Therefore, CAS is likely to bolster the feelings of autonomy, competence, and social connectedness during practices which, in turn, are likely to facilitate goal attainment and a host of desirable sport participation outcomes (e.g., sport satisfaction, positive affective states). Parents are primary socialization agents. In line with our past research (Gaudreau et al., 2011), we propose that PAS should act as a compensatory mechanism to protect the athletes from negative experiences occurring during practices. Therefore, the relation between need satisfaction and sport participation outcomes during practices should depend on the level of PAS perceived by the athletes. A sample of 97 adolescent female athletes competing in synchronized figure skating have completed a short questionnaire after six consecutive daily practices. Results of multilevel modeling analyses will be presented at the 2012 SCRI conference. This line of research is important to highlight the differentiated and complementary roles of parents and coaches in the athletic development of adolescent athletes. Our research will inform the development of psycho-educational and informational prevention programs to foster the autonomy supportive style of significant adults in their daily interactions with competitive athletes.

GOODMAN, DAVID

University of Minnesota

M. Weiss, L. Kip

Standard Research Grants 2006

Unsportsmanlike Aggression in Youth Hockey: Attitudes, Perceived Social Approval, and Situational Temptation

Unsportsmanlike attitudes and actions in youth ice hockey are learned through modelling of and approval by significant adults and peers (Weiss, Smith, & Stuntz, 2008). The present study extended the knowledge base by assessing: (a) competitive league and gender differences on attitudes regarding unsportsmanlike actions, (b) relationships between perceived approval by significant others and youths' attitudes toward unsportsmanlike actions, (c) whether specific hockey situations affect legitimacy of acting in unsportsmanlike ways, and (d) youth hockey players' NHL role models and whether type of model is related to youths' sportsmanlike attitudes. Youth hockey players (192 male, 86 female) representing atom ($M = 10.9$ yrs), peewee ($M = 12.6$ yrs), and bantam/midget ($M = 14.8$ yrs) leagues read three scenarios about unsportsmanlike actions and responded to questions assessing legitimacy, intention, perceived social approval, and situation-specific legitimacy and intention of performing the actions. Analyses of variance showed that legitimacy and intention of engaging in unsportsmanlike acts increased with competitive league, as did perceptions of approval by best friend, teammates, coach, and parents. Male players scored higher than female players on legitimacy, intention, and best friend, teammate, and coach approval. Regression analyses revealed strong relationships between perceived social approval and unsportsmanlike attitudes, with best friend and teammate approval the strongest predictors. Of the hockey situations, players indicated they were most tempted to engage in unsportsmanlike behaviour if it would help win the championship game and if one's opponent did it first. Chi-square analyses showed that players scoring in the upper 20% on legitimacy of unsportsmanlike actions were more likely than those in the lower 20% to name aggressive, fighter players as their NHL idols and less likely to name gentlemanly, skilful players. Results extend research on individual and social factors influencing endorsement of unsportsmanlike behaviours in youth ice hockey.

HATTON, NATHAN

University of Waterloo

Doctoral Stipend 2007

Wrestling with Ethnicity: Immigration, Sport and Class in Winnipeg Before 1930

After 1896 Winnipeg underwent substantial demographic changes. New immigration policies, improved economic conditions, and the closing of the American settlement frontier all served to attract thousands of new immigrants to the Canadian Prairies. Previously a predominantly Anglo-Protestant community, Winnipeg quickly emerged as Canada's most ethnically diverse urban centre. Rapid growth presented many new challenges within the city as it became increasingly stratified according to both ethnicity and class. Wrestling's popularity grew markedly during Winnipeg's transformative period, and many of the tensions present in the larger society found symbolic and physical representation on the mat. *Wrestling with Ethnicity* explores the "mat game's" wide-reaching appeal among a number of ethnic groups in Winnipeg, giving particular attention to how its meaning varied according to the cultural values and goals held by each participant community. The study also examines how immigrant access to the sport changed over time, as well as the ways in which their involvement alternately reinforced and challenged Anglo-Canadian views towards non-English speaking peoples. Simultaneously, *Wrestling with Ethnicity* investigates wrestling's popularity within class-based organizations such as the One Big Union, and how it served as a vehicle for furthering specific socioeconomic interests and ideologies.

Although Canadian historians have given considerable attention to team sports, individual sports, specifically those of a combative nature, remain largely unexamined. *Wrestling with Ethnicity* probes the varied and often competing meanings associated with wrestling during the early twentieth century, and in doing so, seeks to further our understanding of Canada's multicultural and multi-class sporting heritage.

HAVITZ, MARK

University of Waterloo

A.W. Wilson, S.E. Mock

Standard Research Grants 2009

Impact of Ego Involvement with Running on Varsity Athletes' Post-University Running Participation and Health

This research explored lifelong running and jogging participation patterns among a sample of one-time competitive distance runners. This research is part of a larger project built on Baltes' (1987) assumptions that development is a lifelong process imbedded in age-based context, that it is multidimensional and multidirectional, and influenced by life history and environment. More recently, Baltes, Lindenberger and Staudinger (1998) spoke to three components of individual development: 1) individual communalities, 2) individual differences, and 3) intraindividual development. The focus of this paper is on the latter in that it explores change, or lack thereof, in the respondents' ego involvement with running over their post-university lifespans without making explicit between respondent comparisons.

Leisure involvement research is rooted in the ego involvement literature. Sherif et al. (1973) argued that "self [ego] is conceived as a system of attitude structures which when aroused by on-going events, are revealed in more characteristic and less situation-specific behaviors toward objects or classes of objects" (p. 312). Social judgment theory suggests that enduring traits of ego involvement influence activity choice by setting individual latitudes of acceptance and rejection which guide behavior. Multiple streams of ego involvement research have evolved over the past eight decades building on seminal conceptual work in mainline social psychology in the 1940s (e.g., Allport, 1943, 1945; Sherif & Cantril, 1947). Perhaps the most widely referenced stream in sport psychology is the one developed by Duda and colleagues (Chi & Duda, 1995; Duda 1988, 2007) which focuses on task orientation and ego orientation.

That line of research has been especially important in advancing understanding of goal setting in competitive sport. The present study is rooted in another line of ego involvement research (Laurent & Kapferer, 1985; Zaichkowsky, 1985) which stresses facets of personal relevance and has been extensively applied in a broad range of primarily non-competitive sport and recreation contexts (Funk & James, 2001; Havitz & Dimanche, 1999; McIntyre & Pigram, 1992; Selin & Howard, 1988; Siegenthaler & Lam, 1992). This choice was deemed relevant because a good portion of respondents, even those who continued to run post-graduation, de-emphasized the competitive aspects of their adult participation. Involvement was measured using Kyle et al.'s (2007) Modified Involvement Scale; three items each for five facets – attraction, centrality, social, identity affirmation, and identity expression.

Respondents were 262 varsity cross country runners' from an American and a Canadian university. The average age was 49 years old (SD = 17.28) and ranged from 24 to 94 years old. Nearly seventy percent (69.7%) of the sample was male and just over thirty percent (30.3%) were female. All respondents over fifty-five were male as varsity cross country was not offered for women at those schools until the 1970s. Independent variables included in-university involvement facet scores and current involvement facet scores. Analyses controlled for age and sex. Individual regression analyses were run for each facet of involvement with each dependent variable (current overall health perception, current average days run



per week, current length of average run, current running pace, and running competitions entered in last year).

Intrinsic involvement facets were most consistently associated with dependent variables: Current centrality to lifestyle was positively associated ($p < .05$) with all five dependent variables. Current attraction and identity affirmation were positively associated with four of the five (pace and length of run being the respective exceptions). By contrast, extrinsic facets were less consistent predictors: Current social involvement was positively associated with just three outcomes (health and length of run excepted). Current identity expression was positively associated with just two (health, length, and pace excepted). Likewise, and as expected, in-university involvement was an effective predictor of fewer current dependent variables: days run and length of runs. The data suggest that health and leisure services professionals should focus efforts on currently held intrinsic involvement facets.

HEINE, MICHAEL

The University of Western Ontario

J. Forsyth, A. Giles

2005 (Completed: KT paper was not required)

Changing the face of Canadian sport: Understanding the experiences of Tom Longboat Award recipients, 1951-1998

Established in 1951, the Tom Longboat Awards are the highest recognition in sports awarded to Aboriginal athletes in Canada. The Awards, administered annually by the Aboriginal Sport Circle, recognize Aboriginal athletes' accomplishments in high-performance sports while seeking to increase public awareness of Aboriginal athletes' contributions to the Canadian sport system – and their contributions are many. Since 1951, more than 250 Aboriginal athletes have been named regional and national Tom Longboat Award recipients, demonstrating a long and proud tradition of Aboriginal excellence in Canadian sport.

There is no doubt that these athletes rank among the very best in the country – yet their stories are missing from the national narratives on Canadian sport. The public and scholarly literature is largely silent on the subject, resulting in a pattern that has contributed to the “symbolic annihilation” (Kidd, 2000, p. 173) of Aboriginal sporting experiences in Canada. Given the significance of sport as a prominent site for cultural negotiation and contestation, we need to examine the stories of Aboriginal athletes who have been excluded from the dominant discourse on sport in order to understand and critique the ramifications of these forms of exclusion for Aboriginal athletes as well as the Canadian sport system.

This project has two main objectives: 1) to expand our understanding of the factors that enable and inhibit Aboriginal participation in Canadian sport, and 2) to create a more balanced understanding of what it means to be an Aboriginal athlete in the Canadian sport system. We will achieve these objectives by collecting, documenting, and analyzing the sporting experiences of Aboriginal athletes who received a Tom Longboat Award from the year of its inception in 1951 to 1998, and by disrupting the existing discourses on Canadian sport through the construction and dissemination of counter-narratives on Aboriginal experiences in Canadian sport.

Our analytical perspective will be multidisciplinary in nature, informed by readings in critical sport studies, native studies, history, sociology, and discourse analysis. Our data collection method will be the individual semi-structured interview. We will conduct approximately 60 interviews with male and female Tom Longboat Award recipients throughout Canada.

The proposed research program will extend the body of literature on Canadian and Aboriginal sport, Canadian history and sociology, Native studies, and critical cultural studies. Such a contribution will create a more balanced understanding of Canadian sport history and foster a deeper appreciation of what it means to be an Aboriginal athlete in Canadian sport. Further, our research will play an important role in identifying the circumstances that both enable and inhibit Aboriginal participation in sport, and can thus be used in the development of policies and programs that are better able to meet the needs of



Aboriginal people in sport. In short, we hope to change what is currently understood to be the 'face' of Canadian sport to instead be more representative of a broader array of 'faces' that have been and continue to be a part of the Canadian sport system.

HOEBER, LARENA

University Of Regina

A. Doherty, O. Hoerber, R. Wolfe

Standard Research Grants 2010

Innovation in Community Sport Organizations: The Impact of Board and Club Culture

This research program investigates the nature and process of innovation in community sport organizations (CSOs) and the factors that impact them. CSOs are critical players in the delivery of sport participation programs and services that provide numerous benefits to individuals and their communities. Thus, it is important to understand the extent to which CSOs are innovative and if so how that process unfolds.

Currently, we are examining the impact of board culture and club culture on the innovation adoption process. Our prior work identified CSO board culture and overall club culture as important managerial and organizational determinants of innovation in CSOs (Doherty, Hoerber, Hoerber, & Wolfe, 2009). For this work, culture refers to the 'way things are done' at the board and club levels. An in-depth study of culture in relation to radical and incremental innovations is warranted, given that organizational context factors are "more powerful predictors of innovation adoption" than environmental or managerial determinants (Damanpour & Schneider, 2006, p. 230), and that organizational culture is a complex construct (Schein, 1985; Martin, 1992). We are conducting focus groups with board members of 10 different CSOs to gain insight into the nature and impact of those cultures. The findings of this study will add to our understanding of culture as a determinant of innovation by identifying specific elements that contribute to radical vs. incremental innovations and by determining whether board culture and club culture are indicative of sub-cultures (Martin, 1992, 2002) and thus separate determinants of innovations.

This research program is expected to inform practices to improve the capacity of CSOs to adopt and implement innovations, which in turn may improve their delivery of programs and services.



JOHNSON, JAY

University Of Manitoba

E. Allan, J. Chin-San, M. Holman, M. Madden

Insight Grant 2013

Transforming the Canadian Sport Culture: A National Study of Gender, Race, Sexuality, and Violence in Sport Hazing as Barriers to Sport Participation

Canadian media have been filled with recent reports involving extreme hazing incidents in sports. This proposal outlines a multi-year initiative to explore the prevalence and nature of hazing among students participating in Canadian Interuniversity Sport (CIS). This study builds on the findings of the US study by including both quantitative and qualitative questions that explore intersections of gender, race and ethnicity, sexuality and homophobia. There have been no similar comprehensive studies conducted in Canada that examine the experiences of hazing on a specific population. This study will focus on the athletic population within the CIS and provide a practical understanding of sport hazing within a university context. With the large number of athletes participating in the CIS, and the increasing number of harmful hazing practices in sport coming to light, it is important to carefully examine the ways in which hazing impacts university sport systems and cultures and the participation of athletes therein. Specific objectives are as follows: A) Investigate the prevalence and nature of hazing behaviours among student athletes in the CIS; B) Investigate existing strategies within athletic programs to manage hazing activities among university sponsored teams; C) Examine policies for the development of strategies to enhance policy effectiveness; D) Provide research-based strategies to sport administrators for responding to and preventing hazing among CIS student athletes; and E) Provide a template for the transfer of knowledge by which other sport organizations such as secondary schools, community sport or regional/national teams can address the hazing within their programs.

KEHLER, MICHAEL

The University of Western Ontario

2005 (Completed: KT paper was not required)

Healthy bodies, boys and body image: An examination of male students' reluctance to participate in compulsory grade nine physical education classes

Concerns for inactive and obese youth have prompted swift action to promote health and physical activity in schools, yet links between masculine identities and the bodily practices of boys who reluctantly participate within the physical education context are not addressed in current policies or practices. This research examines the intersections of health, masculinity and schooling. Specifically, the researchers question why some males, particularly grade nine boys, reluctantly participate in mandatory physical education classes in three different provinces across Canada (British Columbia, Ontario, Nova Scotia).

Qualitative research methodology will be used to investigate how boys' understandings of masculinities influence health practices in schools. During this three year study, investigators will conduct semi-structured interviews, field observations of participants in physical education classes and invite participants to write journal-type responses in a secure blog site. This multi-method approach will facilitate the participants' recounting stories, experiences and feelings, thereby illustrating what they understand about body image, what it means to be a boy among boys, how the particular context of physical education classes reflect and support these particular boys' identities and how these particular boys negotiate their participation and involvement in physical education classes.

The knowledge gained from this research will potentially deepen and more fully explain intersections between masculinities, healthy life practices and physical bodies. In addition, this research has implications for educators, teachers, school curricula developers and health professionals concerned with how masculinities intersect in the field of health and education. Finally, this research has the potential to better explain the negotiation of social and cultural practices of masculinity that underscore messages among students about gender identities, body image and health.

KEY WORDS: health, masculinities, education, obesity, body image



KOCH, JORDON
University Of Alberta
Doctoral Stipend 2010

One Size Doesn't Fit All: Sport, Community Development, and Cultural Diversity

This study considers a range of stakeholder perceptions surrounding the rise and fall of a federally subsidized sport-related campaign that emerged in a First Nations community in central Alberta, Canada. This program was initially conceived of (by some stakeholders at least) as a 'gang intervention strategy' and was hoped to improve the overall health and wellness of residents in this First Nations community, specifically youth. Highly popular during its first few years of operation, over time, interest and support (human and financial) in the program waned significantly, almost to the point of non-existence. Using a theoretical framework informed by Pierre Bourdieu's field-analytic perspective, this study explores the diverse and sometimes competing views surrounding the function(s) of this sport-related campaign in a particular community in the new millennium. An extensive amount of ethnographic fieldwork combined with a series of open-ended, semi-structured interviews with different stakeholders in the community comprises the primary evidence for this study. The preliminary findings emphasize the diverse ways in which sport is used and re-employed by multiple stakeholders to service an array of socio-cultural and economic-political agendas in the community, thus extending and complicating taken for granted notions of sport and health. The findings further point to the tensions and complexities that must be negotiated by government and other stakeholders in sport development when supporting similar types of initiatives.

KOWALSKI, KENT

University of Saskatchewan

C. Sabiston, P. Crocker, W. Sedgwick, J. Tracy

2005 (Completed: KT paper was not required)

The role of self-compassion in adolescent women athletes' experience of the self-conscious emotions

Sport Canada, along with the Canadian government, has identified the need for increased sport participation in Canada, particularly among children and youth. To help accomplish this objective, many youth sport programs in Canada emphasize the development of self-esteem through sport and physical activity. However, self-compassion has been proposed as an alternative conceptualization of a healthy attitude towards the self and has been shown to be related to thoughts, feelings, and behaviors differently than self-esteem. Self-compassion involves a warm and non-judgmental understanding of the self rather than a belittling of pain or harsh self-criticism. Self-compassion might be particularly relevant to sport because one challenge that limits sport participation for many young women is feeling evaluated on their performance and/or body image. Most relevant to our research program is that thinking about how one is being evaluated, or might be evaluated, by others in achievement domains (such as sport) can produce self-conscious emotions (e.g., guilt, shame, pride). Shame can be especially devastating, as it arises from a negative evaluation of the entire self and often leads to withdrawal and avoidance of settings in which shame is experienced. The objective of our proposed research program is to better understand young women athletes' experiences of self-conscious emotions (i.e., guilt, shame, pride), and the role of self-compassion in their emotional experiences. Ultimately our goal is to (a) provide evidence as to the relevance of the self-conscious emotions to young women athletes, and (b) support the development of self-compassion, in addition to self-esteem, as a worthwhile goal when working with young women in sport to both enhance and increase their sport participation.

LAPOINTE, LAURENCE

University Of Montreal

S. Laberge

Doctoral Stipend 2012

Transformation of Social Norms Concerning Transportation and Community Capacity Building to Ensure the Continuation of an Active Transportation Program for getting to School: Case Study of Trottibus

The proportion of students who walk to school in Quebec has decreased significantly over the past few years. To address this problem, the Canadian Cancer Society wanted to use its expertise in community engagement and partnerships by creating Trottibus, a program to promote active transportation (AT). This study aims to (1) identify the environmental factors that influence students' choice of transportation (active, motor or mixed) in schools where Trottibus has been implemented, (2) explore the driving factors of and barriers to the transformation of social norms concerning the mode of transportation used to get to school, and (3) examine the factors that help build capacity in a community in order to implement an active transportation program and ensure its sustainability. An electronic questionnaire on environmental factors (physical, socio-cultural, economic, organizational and political) will be sent to the parents of children who do not have access to school buses to determine what factors influence the mode of transportation chosen for their child. Discussion groups with parents and volunteers will be an opportunity for us to obtain explanations of the most important variables influencing whether or not AT is adopted and to examine the issue of transforming social norms. Semi-structured interviews with stakeholders from the various program implementation sites will allow us to evaluate factors that contribute to building community capacity. The results of our study will allow us to document the impact of this type of program on the transformation of social norms concerning active transportation and help us better understand how building community capacity can ensure the sustainability of programs that promote physical activity in order to encourage and boost the participation of young people in active transportation programs.

LASSONDE, MARYSE

University of Montreal

L. de Beaumont, L. Henry, M. Thériault, D. Ellemberg, S. Leclerc, H. Théoret
2005 (Completed: KT paper was not required)

Effects of sports concussions

There are an estimated 300 000 sports related concussions each year in the USA, and this is likely an underestimation as many athletes and coaches often fail to recognize them, especially when there is no loss of consciousness. Concussions often lead to neuropsychological dysfunctions that affect memory, attention, and executive functions, which last anywhere from one month to two years and that can significantly interfere with everyday activities. In fact, when athletes return to play before complete recovery, their risks of suffering a subsequent trauma increases significantly. Moreover, if a second concussion occurs before the brain has sufficiently recovered, it can cause severe cognitive symptoms or even death. This is known as the second impact syndrome and it has triggered the development of more sensitive diagnostic tools to quantify recovery in order to guide return to play decisions. Members of our team have already developed a series of such tools that have been successfully used with College athletes.

Moreover, there is a growing body of evidence suggesting that there are cumulative effects of concussions that manifest as increased susceptibility to subsequent concussions as well as an increase in their severity. Recent findings suggest that the effects of a concussion far outlast the acute phase. For example, it has been shown that former athletes who suffered multiple concussions have a fivefold prevalence of mild cognitive impairment (MCI) (a condition that converts at a rate of about 10-20% annually into dementia) compared with retirees without a history of concussion. Moreover, TBI has been described as the most robust environmental AD risk factor in the general population.

We have recently compared a group of healthy former athletes in late adulthood (60 years old) who sustained their last sport-related concussion in early adulthood with healthy former athletes with no history of concussion. These older concussed athletes showed memory and impulse control deficits that correlated with electrophysiological anomalies, as well as abnormal motor responses. Considering the accumulating evidence obtained through epidemiological and case studies indicating that concussions may lead to pathological aging, it is of vital importance to reproduce these results in a larger sample and broader age range.

As importantly, little to nothing is known, about the consequences of sports-related concussions in children, and that despite statistics indicating that one child out of 100, between the ages of 7 and 13, has suffered a concussion. Further, although studies suggest that the developing brain is more 'plastic' than that of the adult, the brain's potential for recovery following a concussion during childhood is unknown. The objectives of one of our grant applications are to 1) determine the nature of the neuropsychological deficits caused by a concussion during development, 2) identify the associated neurophysiological deficits, 3) determine if there is a relationship between the age at which the concussion occurred and the severity of the deficits, 4) chart the recovery period for the different age



groups and the different brain functions, and 5) develop a diagnostic tool for children that takes into account age at the time of injury and that can be used to assess recovery.

Results pertaining to the effects of sports concussions on cerebral functions will be summarized for children, young and older athletes. These results stress the need for longitudinal studies to better define safe return-to-play guidelines.

LOUGHEAD, TODD

University Of Windsor

G. Bloom, K. Chandler, M. Eys

Insight Grant 2013

Developing Leadership Behaviours in Athletes

Leadership in sport has been assigned great importance by both athletes and coaches with the majority of research examining the role of the coach. Research on coach leadership has a strong past; the same cannot be said about athlete leadership. This is unfortunate given that every team member (coaches and athletes) has the potential to engage in leadership behaviours. Research examining athlete leadership has focused on the characteristics of athlete leaders, the number of athlete leaders per team, and the influence of athlete leaders' behaviours on the team environment. Several conclusions can be made from this body of research. First, sport is an ideal area for the development of leadership behaviours. Second, athlete leadership is widespread on sport teams with numerous athletes providing leadership to their teammates. Lastly, athlete leadership influences several individual (e.g., satisfaction) and team (e.g., cohesion) outcomes. Despite the practical and empirical benefits of athlete leadership, there are no theoretically grounded or empirically based athlete leadership development programs. Therefore, the objective of this program of research is to address this gap in the literature. The results of this research program have the potential to make several important contributions. First, this program of research will see the creation of a theoretically grounded and empirically tested athlete leadership development program. Second, the majority of leadership development programs typically focus on one or two leadership behaviours, and as such, our research program focusing on a full range of behaviours will be novel. Third, most research has tested leadership development programs lasting one day to two weeks. This research program addresses the need for longitudinal research by investigating leadership behaviours over the course of three years. From an applied perspective, sport associations, coaches, and athletes will have a development program that can be used as a resource in shaping positive leadership behaviours in athletes. This type of resource will impact sport participation by establishing best practice standards, and expand awareness of the importance of developing leadership in all of our athletes.

MACMULLIN, JENNIFER

York University

Doctoral Stipend 2013

Family Matters: Predictors of Participation and Retention in Sport by Youth with Developmental Disability

Individuals with developmental disability (DD) continue to be marginalized from sport (Myers et al., 1998), so understanding the factors that influence their motivation for sport participation is critical. The family is of utmost importance when it comes to life-long motivation to participate in sport (Sport England, 2004), and four key family factors are thought to predict participation: (1) the absence of financial and time constraints on the family, (2) a better socio-economic situation, (3) a supportive home environment, and (4) a strong family interest in physical activities (King et al., 2003). To date, no empirical studies have systematically examined the family predictors of motivation to participate in Special Olympics. Fifty-nine Special Olympics athletes between the ages of 13 and 23 years of age with DD and their parents completed in-person interviews. We measured a number of potential correlates of sport participation: 1) The financial and time impact of participating in sport on the family; 2) the socio-economic situation of the family based on the parents' educational, occupational, and marital status, along with reported family income (Weiss et al., 2003); 3) the emotional support of the home environment using the Five Minute Speech Sample coding system (Magana-Amato, 1993) and the General Functioning Scale of the McMaster Family Assessment Device (Miller et al., 1985); and 4) parent reported participation and beliefs about physical activity (Troost et al., 2003). Child reported motivation for sport participation was measured using the Pictorial Motivation Scale (Reid et al., 2009). Ultimately, the results of this research will be used to promote the full and active participation of individuals with DD in sport.



MASON, COURTNEY
University of Ottawa
Post-Doctoral Stipend 2011

Barriers to Participation in Physical Activity for Shibogama First Nations

This research examines the barriers to participation in sport and physical activity for Shibogama First Nations communities in northwestern Ontario. Aboriginal peoples face significant barriers to participation in physical activity in comparison to Euro-Canadians or other minority populations. This collaborative research project qualitatively investigates how sport and physical activity are connected to both broader cultural practices and Aboriginal holistic perspectives of health in two remote First Nations (Wawakapewin and Kasabonika Lake). This research focused on land-based practices associated with food harvesting (hunting, fishing and gathering). Key questions included: 1) What barriers to being physically active exist; and 2) What are the exercise, dietary and cultural implications of participating in land-based practices for these First Nations? While supported by participant observation, semi-structured and unstructured interviews with thirty-five community members form the basis of primary information collected. In two months of fieldwork in these communities, I contributed to several programs designed to enhance food security and improve access to physical activity. Preliminary findings suggest that despite the significant barriers that these communities encounter, land-based practices can support community-driven initiatives to increase physical activity as a strategy to prevent chronic disease and foster cultural continuities. For millennia, cultural practices that constitute forms of physical activity have been grounded in the daily lives of First Nations communities. This research unravels some of the complexities surrounding participation in physical activity and explores how it is linked to broader conceptions of health for rural First Nations.

MCEWAN, DESMOND

York University

Doctoral Stipend 2013

Teamwork in Sport: A Framework for Increasing Participation in Sport

Although there is an intuitive belief and anecdotal evidence of the importance of teamwork in sport, formal research on this construct has been surprisingly limited. However, research from organizational psychology has shown that effective teamwork is important for improving variables such as employees' job satisfaction, commitment, enjoyment, and retention. The purpose of my doctoral research is to assess if and how teamwork is related to participation in sport, in terms of both attendance throughout a season and retention in sport in following years. I have begun my research with a theoretical and integrative review (which was recently published in the journal, *International Review of Sport & Exercise Psychology*) that includes a multidimensional conceptual framework of teamwork in sport (to be presented within this poster). The next phase of my research will involve creating a multidimensional measure of teamwork. I am currently in the process of creating a preliminary pool of items for this questionnaire. My poster will include considerations for team building and development, and how this can subsequently influence participation in sport. This framework has the potential to not only influence future research in sport (including my own) but also inform professional practice for coaches, sport psychologists, and policy-makers alike.

MCHUGH, TARA-LEIGH

University of Alberta

Insight Development Grant 2014

Physical, mental, spiritual, and emotional benefits of sport participation for Aboriginal youth

There is an emerging body of literature that highlights the physical, mental, spiritual, and emotional benefits of sport participation for Aboriginal youth. Recognizing the various benefits of sport, Sport Canada's Policy on Aboriginal Peoples' Participation in Sport is focused on the goals of enhanced participation, enhanced capacity, enhanced excellence, and enhanced interaction for Aboriginal peoples. This Policy was released in 2005, but there has been little follow-up to determine if such goals have been met. Furthermore, there has been an identified need for more research that is focused on ensuring that the goals of this Policy become a reality. As a result of a newly established partnership that consists of cross-sector perspectives (academic, government), this research team is uniquely positioned to address this gap between research and policy. Specifically, the purpose of this proposed program of research is to explore how the participation of Aboriginal youth in traditional Inuit and Dene games can support Sport Canada's goals to: (1) enhance participation of Aboriginal peoples in sport, and (2) enhance the capacity of individuals, organizations, and communities in support of Aboriginal sport. By engaging Aboriginal youth, coaches, and administrators in focus group and follow-up one-on-one interviews, this collaborative and participatory research will honour the voices of Aboriginal peoples and position their insights at the forefront of this emerging and unique body of research. This research will provide a practical example of how Aboriginal youth and community partners (e.g., coaches, administrators) can and should be actively involved in research that respects their knowledge and honours their voices in the research process. There is a lack of sport research that has focused on the sport practices of northern Aboriginal youth. This research will be documented and shared so that future researchers can optimize on our lessons learned from this necessary partnership.

MCRAE, HEATHER
University of Manitoba
Doctoral Stipend 2009

Culturally Relevant Sport for Urban Aboriginal Youth: Examining the Role of Sport Education

In Canada, Aboriginal sport leaders have argued that sport is a basic human need and that more attention and resources are required to build a strong grassroots base for sport in Aboriginal communities (Maskwachees Declaration, 2000). However, there is an absence of scholarly literature that addresses the design of culturally relevant sport programs in Aboriginal communities (Forsyth, Heine & Halas, 2007). Researchers investigating sport-for-development programs have stated that such programs require carefully designed program structures (Sugden, 2006) and considerable facilitation skills, especially for outsiders to local issues (p. 288).

Yet, research gaps exist regarding a) "...how sport may be adapted to achieve positive outcomes in different contexts, and for different populations and individuals" (Sport for Development and Peace International Working Group, 2007, p. 4) and, b) leadership training for volunteer leaders (p. 5).

My study will examine sport education as a key factor in the design and development of culturally relevant sport programs for urban Aboriginal youth in Manitoba. Building on the research of Forsyth et al (2007), regarding the need for culturally relevant physical education for Aboriginal youth in schools, my research theorizes a positive relationship between culturally relevant sport programs and sport educators, and the participation and engagement of urban Aboriginal youth.

Specifically, this project addresses the following research questions: To what extent are community sport programs designed to be culturally relevant for urban Aboriginal youth? What is the significance of sport education (e.g., leadership training and experiential learning) in community sport programs identified as culturally relevant? What sport education processes and mechanisms enable sport educators (e.g., volunteers / coaches / staff) to develop culturally relevant sport practices?

The intended start date for my qualitative research study is January 2010.



MISENER, KATHERINE
University of Western Ontario
Post-Doctoral Stipend 2009

An Investigation of Non-profit Community Sport Organizations through the Lens of Social Responsibility

Community Sport Organizations (CSOs) are expected to play a significant role in civil society. However, our understanding of their social impact is primarily limited to the context of their basic mandate for sport service provision. Pearson (2008) argues that a type of social responsibility mirroring the CSR movement in the business sector could be a central element in the development of sport policy and fundamental to sport governing bodies' advancement of social capital. Greater evidence is needed to show how these clubs integrate concerns and action on wider social issues into their structure, operations, and plans. Then, equipped with this organizational understanding, research can determine how CSOs may contribute to the community development agenda of the broader nonprofit and voluntary sector, while supporting or enhancing their primary mandate— sport participation.

This study investigates the prevalence of a broader social responsibility among CSOs that encompasses more than just providing a particular 'good' to society; it refers to ethical practices and a more generalized concern for the community (e.g., societal integration, environmental activism). Presidents of CSOs in three provinces will complete an online survey that measures the extent to which they are engaging in various aspects of social responsibility (legal, ethical, philanthropic, instrumental), as well as the perceived importance of each construct for their organization's strategy and operations. Analysis of variance will also be used to determine whether social responsibility is associated with institutional characteristics such as sport, size of club, age of club, community size, and urban/rural location. The research will be used to develop a model of social responsibility in nonprofit sport organizations, and generate understanding about social responsibility as a (potential) avenue for strategic practice by CSOs to further their social impact.

MISENER, LAURA

Western University

D. Legg, G. McPherson

Insight Grant 2013

Leveraging Parasport Events for Sustainable Community Participation: 2014 Glasgow Commonwealth Games

The aim of this research is to examine how the hosting of different forms of sport events for persons with a disability are being leveraged to create opportunities for community participation, and influence community attitudes towards disability. The assumption about hosting parasport events is that the mere visibility of event will impact attitudes and perceptions towards persons with disabilities in a positive manner, however little evidence beyond anecdotes supports this assumption. Further, recent research on leveraging events also suggests the need to strategically utilise the opportunity of the event and related resources if seeking to attain sustainable positive impacts for the host community. From this perspective we are focusing on two different types of large scale sporting events: integrated events where able bodied athletes and athletes with a disability compete alongside one another (2014 Commonwealth Games – Glasgow, Scotland), and non-integrated events that have a distinct event for athletes with a disability separated by time, but occurring in the same or similar location (2015 Pan/Parapan American Games – Toronto, Canada). To date, we have collected the majority of the data from the 2014 Commonwealth Games focusing on policy documents, legacy planning documents and strategic interviews to examine the tactics, strategies, and programs used to enhance community participation opportunities. Secondly, we have collected survey data from a subset of 2,869 volunteers pre-event, 795 onsite spectator surveys determine the levels of perceptions and awareness of disability as related to the event using a modified version of the *Scale of Attitudes Towards Disabled Persons (SADP; Antonek, 1981)*. Thus far, the results demonstrate a highly strategic and integrated policy approach to leveraging the event for broader accessibility outcomes aligned with a social understanding of disability. Preliminary survey data demonstrates a moderate level of awareness of parasport at the integrated events, and generally moderate attitudes towards disability. Spectator data shows that 70% of those surveyed feel that the event did not affect their attitude towards persons with disabilities. Post-volunteer survey data collection is under way. The datacollection process will be repeated for the 2015 Parapan American Games.

MOCK, STEVEN

University of Waterloo

Standard Research Grants 2011

The role of sexual minority-focused sport group participation in reducing minority stress

For this longitudinal survey research, three hundred and twenty participants in diverse sport groups that focus on sexual minorities completed the baseline interview and two hundred and fifty completed data collection approximately nine months later. Analyses for conference presentations and student theses have shown how sport participation with other sexual minorities facilitates informational support that will help participants manage identity in everyday life and counter negative stereotypes. We have shown that sport group involvement builds a sense of affiliation with the group and increased self-acceptance (McKenna & Bargh, 1998). The support, affiliation, and self-acceptance developed in this context enhance individual identity, identification with the broader sexual minority community, and lead to decreased concealment of sexual minority identity in other contexts. In general, these processes of identity enhancement help to explain how sport group involvement may counteract minority stress and lead to better mental health (Hatzenbuehler, 2009; Herek, Cogan, Gillis, & Glunt, 1997).

Student Theses

- Tudor, Maley. (2014). Sexual minority-focused sport group involvement reduces the impact of homophobic stigmatization on internalized homophobia and degree of disclosure. MA Thesis, Dept. of Recreation and Leisure Studies, University of Waterloo.
- Zeuner, Jeffrey. (2014). The role of sexual minority sport group involvement in reducing internalized homophobia and increasing sexual minority identity disclosure. BA Thesis, School of Public Health, University of Waterloo.

Funded Students: 1 MA, 1 PhD, 1 Postdoc.

Presentations

- Mock, S. E. (July, 2014). *Identity expression in sexual minority-focused sport attenuates internalized homophobia and sexual minority identity concealment over time.* Paper presented at the Leisure Studies Association Annual Conference, Glasgow, UK.
- Mock, S. E., & Tudor, M.* (2013, July). *Involvement in sexual minority-focused sport as a buffer against internalized homophobia.* Paper presented at the Leisure Studies Association Annual Conference, Manchester, UK.
- Mock, S. E., Meisner, K. E., & Havitz, M. (2013, May). *Identity expression, social bonding, and centrality as motivations for participation in LGBT-focused community sport.* Paper presented at the North American Society for Sport Management, Annual Conference, Austin, TX.
- Mock, S. E. (2013, October). *The role of sexual minority sport group involvement in counteracting minority stress: Preliminary findings.* Poster presented at the Sport Canada Research Initiative, Annual Conference, Ottawa, ON.
- Mock, S. E., Shaw, S. M., Mannell, R. C., Rye, B. J. (2012, October). *The role of sexual minority sport group involvement in counteracting minority stress: Preliminary findings.*
- Poster presented at the Sport Canada Research Initiative, Annual Conference, Ottawa, ON.

Video production

- Lindquist, D., Sheridan, S., & Mock, S. E. (Producers). (2012). *Then and Now* [DVD]. Available from: <http://youtu.be/nZANscq4yME>

NADEAU, LUC

Laval University

Martel, D

Insight Grant 2014

Effects of an intervention strategy based on game knowledge, tactile knowledge and group sports performance

The usual training methods [*performing a motor action in isolation, increasing the frequency (repetition) and intensity (overload) of the practice*] are poorly adapted to the learning of *tactical skills* in group sports. Furthermore, in comparison with other sports skills (physical or technical), *tactical skills* are rarely taught, despite a significant contribution to players' performance (Trudel & Coté, 1994). Therefore, the objectives of this study are (1) to describe the *training methods* promoted by coaches for the teaching of *tactical skills* in ice hockey and soccer (*Phase 1*), then (2) to compare training sessions given by coaches trained in an approach based on *game knowledge* (experimental groups-EG) with sessions given by coaches not trained (control groups-CG) in this approach (*Phase 2*). For *Phase 1*, a (differed) analysis will describe the characteristics of the training methods recommended by hockey coaches (N=6) and soccer coaches (N=6) for athletes aged 11 to 18 years, in order to teach *tactical skills*. For *Phase 2*, hockey coaches (N=3) and soccer coaches (N=3) will be trained in the use of methods based on *game knowledge*. Their training sessions (EG) will be compared with those of the hockey coaches (N=3) and soccer coaches (N=3) who are not trained in this method (CG). Deferred analysis of the training sessions (before, during and after the training) will enable us to compare (1) the nature and relevance of the tactical learning activities as well as (2) the relevance and accuracy of the information shared by the trainers in their teaching of tactical concepts. The tactical knowledge of the athletes will also be measured before and after the training by the coaches in the control and experimental groups. The information collected will be used to improve coach training programs in group sports.

NEELY, KACEY

University of Alberta

N. Holt

Doctoral Stipend 2013

Coaches' Perspectives on the Deselection Process in Competitive Youth Sport

Deselection (or being 'cut') is the elimination of an athlete from a competitive sports team. Despite the fact that deselection is based on decisions made by coaches, little is known about the deselection process from coaches' perspectives. The overall purpose of this study was to examine coaches' views of the deselection process for provincial level female adolescent athletes. Specifically, this study addressed two research questions: (1) What are the psychological, social, and emotional aspects of coaches' experiences of deselecting athletes and how do they manage these issues? (2) Based on their experiences, what are coaches' views about effective strategies for deselecting female adolescent athletes and communicating their decisions? Twenty-two head coaches (16 male, 6 female; *M* age=41.95 years) of provincial soccer, basketball, volleyball, and hockey teams participated in semi-structured interviews. Data were subjected to inductive content analysis. Results reveal the deselection process involves five phases. Pre try-outs, coaches held meetings with athletes and their parents to explain the try-out process, and clearly described expectations and evaluation criteria. During try-outs, coaches emphasized the importance of fair evaluation and documentation. They relied on multiple coaches' feedback when making their deselection decisions, which seemed to help them justify and reduce their stress about making decisions. Deselection meetings created the most stress for coaches. When communicating deselection decisions to athletes, demonstrating respect (e.g., selecting a private meeting space) and providing specific feedback were significant to the process. Post deselection, coaches reported that their main goal after cutting athletes was that athletes stayed involved in the sport and continued to improve. However, many coaches were unsure of how athletes perceived the deselection process used. Findings provide a better understanding of the deselection process from coaches' perspectives and provide some useful insights into how coaches may carry out the deselection process and communicate deselection decisions to female adolescent athletes.

PERRIER, MARIE-JOSÉE

Queen's University

Post-Doctoral Stipend 2013

The creation and reception of Paralympic Media: The 2014 Sochi Paralympic Games

Media analyses have been relatively critical of the representation of athletes with disabilities in past. Specifically, scholars have noted that athletes with disabilities are under-represented in the media but when they are represented, they have been described as survivors of tragedy and poster children for “successful disability”. Given the possible reach of these media, it is important to explore *how* media about Paralympians are created by the media and *how* they are received by the general public. Thus the objectives of this project were to: 1) explore how Canadian media developed stories about the 2014 Sochi Paralympic Games and 2) explore the general public’s response to sample media stories. After providing informed consent, participants (4 media, 10 general public) engaged in approximately hour-long interviews. A sample of news stories were used to foster discussion during the interview. Interviews were transcribed verbatim and data were analyzed using a directed content analysis. Several themes emerged from the data. First, members of the media were motivated to write about athletes to highlight their athleticism, rather than disability, and to educate the general public about adapted sport. Second, media developed several different types of stories including human-interest stories, technical articles to describe how a sport is performed, and event recaps. Third, members of the general public were generally unaware of Paralympic sport and expressed a preference for broader stories that highlighted how sports were played and those that provided background information about athlete’s training regimens. Of interest, few participants preferred event recaps unless they were familiar with the sport. Implications for future media, including the 2015 ParaPanAm Games and 2016 Paralympic Games will be discussed.

RAK, JULIE

University of Alberta

2005 (Completed: KT paper was not required)

Gender in Mountaineering Accounts

When George Mallory was asked in 1922 why he wanted to climb Mount Everest, the highest mountain on earth, he answered simply, “Because it is there.” But Mallory’s claim proved to be anything but simplistic. Since then, the activity of mountaineering has helped to shape how the self was understood within the context of conquest and adventure for the next one-hundred years. Today, mountaineering remains at the forefront of public consciousness, particularly in the thousands of climbing biographies and memoirs in print, and in the films that are shown at popular mountaineering film festivals around the world. But even in the twenty first century, mountaineering’s position as the metaphor for the pinnacle of human achievement remains a predominately male achievement. Although the first woman to summit the major Alpine peak Mont Blanc did so in 1808—only 56 years after the first man climbed it in 1764—women’s aspirations to become mountain climbers have been the source of amusement, disapproval and even disbelief for more than a century.

As of yet, there is no an extensive study of mountaineering and gender issues in written accounts and books. Mountaineering is still male-dominated, and yet there are millions of women who read about it. To understand why, with graduate student researchers I will be analyzing films and books about mountaineering and visiting the two largest film and book festivals in the world: the Banff Film/Book Mountaineering Festival and the Festival of Mountaineering in Kendall, UK to interview fans of mountain books and films, and to talk to producers of these works to see who consumes these narratives and what their ideas about gender are. My project will result in the first book-length treatment of written and filmed expedition accounts which examines “everyday gender” in the lives of women and men who climb.

READE, IAN

University of Alberta

C. Knight, W. Rodgers

Standard Research Grants 2011

Factors Affecting Coach Retention

Experienced coaches are arguably the most influential factor in the provision of quality sport experiences (Holt, 2008) at all levels of sport, and contribute substantially to the **adherence of sport participants to sport**. The coach's work environment is thought to be a predictor of job stress and job satisfaction and probably coach retention. The purpose of this research was to explore and describe the work environments of coaches of competitive athletes within a framework described by Sauter, Murphy, and Hurrell (1990) that includes six categories of work related stressors considered problematic for employees.

The main question concerns whether the coaches' work environments vary in terms of factors known to be associated with job stress and job satisfaction.

The research is based on previous research conducted in various types of work organizations (Kelloway & Day, 2005; Meyer, Allen, & Smith, 1993) that supports our hypothesis that factors in the work environment (including workload, job content, job control, support, pressure to win) are associated with the coaches' intent to stay or leave their job.

The research is comprised of three studies. The first study (personal interviews with experienced coaches) has been completed and the results are being used to develop an instrument to assess the work environment factors that influence coaches to stay with or leave their coaching positions. In the second study, the instrument will be administered to a large sample of experienced coaches to measure their intentions to stay or quit, and the third study will follow-up with the same group of coaches to determine whether their intentions have changed over time.

The results to date have indicated that the work environments of coaches of competitive athletes vary substantially, with many coaches working in overloaded, ambiguous and political situations that would be considered substandard work environments. However, despite the challenges of coaching, many coaches choose to stay with the job and a few factors are emerging as important influences on that decision. For example, supportive employers, appreciative athletes and opportunities for career advancement were seen to be very important factors influencing job satisfaction (which seems to be a predictor of coach retention).

Many questions remain to be answered, such as:

1. Are some factors more influential in predicting that a coach is about to quit?
2. Which factors, if any, can be controlled by the employer sport organization?
3. When coaches quit, do they continue to contribute to sport?



RICH, KYLE

University of Ottawa

Doctoral Stipend 2013

Sport and Recreation in Rural Canada

While sport and recreation are ostensibly significant aspects of rural community life, little academic inquiry has focus on rural community members' understandings of these activities, nor the processes through which sport and recreation may produce outcomes, both positive and negative, within these communities. Therefore, my doctoral research will interrogate the under explored intersection of sport/recreation and community development within rural Canadian community contexts. My dissertation research will involve two components. The first component will be theoretical and seek to develop a framework for understanding and researching sport/recreation in rural contexts. The second component will utilize a participatory research approach to work with a rural community in order to examine community members' understandings and the significance that they attribute to sport/recreation within their community. Collectively, my doctoral research will address the lack of inquiry into rural community sport and recreation and also provide important insights for academics and community members interested in sport/recreation participation, community development through sport/recreation, and the socio-cultural significance of sport/recreation for rural Canadian communities.



RIVARD, LYSANNE

McGill University

Doctoral Stipend 2011

Rwandan Girls' Perspectives on their Lived Experiences of Physical Education and Sport: Challenges and Solutions to Sport Participation in Secondary Schools

Sport for Development and Peace promotes physical education and sport activities as tools that can 'empower' girls, improve their health, and break down strictly defined gender norms and stereotypes. However, as the majority of studies identifying the benefits of girls' participation in physical activity have taken place in Western contexts, experts call for studies that help to better understand how physical activity is defined, understood, and personally experienced by girls in developing countries where socio-cultural contexts and gender dynamics greatly differ. Furthermore, critics are currently concerned with top-down programming approaches implemented in developing contexts that exclude or bypass beneficiaries. They are thus calling for the use of research methodologies that will enable recipients' active involvement in the evaluation and implementation of programming. In an effort to contribute to both context knowledge and methodological approaches, this research gathered Rwandan girls' perspectives on their lived experiences of physical activity and sport in secondary schools by implementing a locally adapted participatory method that integrated girls into the decision-making process. Using the visual participatory method Photovoice, approximately 200 girls photographed their feedback, concerns and suggestions to improve programming. The photographs and captions were then presented to and served as the basis for semi-structured interviews with three levels of targeted Rwandan stakeholders: the girls' physical education teachers, gender and physical education experts and three ministries: Education, Sports and Gender and Family Promotion. Results indicate that, through an adapted participatory activity combined with semi-structured interviews with key stakeholders, girls can contribute relevant and pertinent feedback and suggestions for programming to better meet their self-identified needs and concerns, and thereby shedding light on their understanding and experiences of physical activity and sports in schools.

SABISTON, CATHERINE

University of Toronto

Insight Grant 2013

Understanding Body-Related Self-conscious Emotions in Adolescent Girls' Sport

Girls participate in sport consistently and significantly less than boys during adolescence and across the lifespan. These lower participation rates translate into having fewer women involved in all sectors of Canadian Sport. Furthermore, concerns have been raised about the quality of the sport experience. We proposed that body-related self-conscious emotions (shame, guilt, envy, and pride) are understudied yet highly relevant factors that may be associated with the quality of young girls' sport participation experiences given the inherently socially-constructed and highly evaluative nature of the sport environment. In study 1, we identify body-related self-conscious emotions and links to sport participation experiences (e.g., competitive anxiety, enjoyment, affect). In study 2, we identify and test theoretically- and empirically-derived predictors of body-related self-conscious emotions (e.g., physical self-perceptions, attributions, cognitions). Together, studies 1 and 2 help to identify barriers to participation in sports, and sets a mixed-methods framework to develop and evaluate an intervention (study 3) aimed at reducing the negative and enhancing the positive body-related self-conscious emotions. Along with this intervention program, we are developing evidence-based training materials to provide coaches and staff of female sport athletes with the capacity to delivery the program to their athletes.

This program of research is focused on a highly relevant yet unknown facet of girl's sport participation. Together with our history of funded research, we address three of the target areas identified by the Sport Participation Initiative, within a segment of the Canadian population that is under-represented in sport. Along these lines, we also address the main objective of the *Actively Engaged: A Policy on Sport for Women and Girls* to "foster sport environments – from playground to podium – where women and girls are provided with quality sport experiences".



SHIRAZIPOUR, CELINA

Queen's University

A. Latimer-Cheung

Doctoral Stipend 2014

Psychosocial constructs influencing parental support for youth with a physical impairment's sport participation: A literature review

Children with physical impairments have low rates of physical activity participation when compared to children without impairments. Given the benefits that result from sport involvement, the promotion and understanding of sport participation for children with physical impairments has been identified as a critical area for research. One critical factor identified in increasing sport participation for children with physical impairments is parental support. Therefore, the primary purpose of this presentation is to review research on psychosocial factors that determine whether parents encourage sport participation for their child with a physical impairment. A secondary purpose of this presentation will be to provide recommendations for future research. By meeting our recommendations and developing knowledge on the determinants of parents' decision to promote sport for their child with a physical impairment, researchers will fill gaps in the literature and aid in improving sport participation for children with physical impairments.

SPEED-ANDREWS, AMY

University of Alberta

**R. Rhodes, C. Blanchard, N. Culos-Reed, C. Friedenreich, L. Belanger, C. Courneya
2005 (Completed: KT paper was not required)**

Social ecological correlates of Physical Activity and Sport in a population-based sample of Colorectal Cancer Survivors

Background : Colorectal cancer is the second leading cause of death from cancer. In 2008, an estimated 21,500 Canadians will be diagnosed with colorectal cancer and 8,900 will die of it (Canadian Cancer Society, 2008). Despite the relatively high mortality rates, the prospects of surviving have improved significantly over the last few decades. Unfortunately, medical interventions to improve survival are often accompanied by a host of negative side effects, including decrements in quality of life (QoL), and increased risk for second cancers and other chronic conditions such as cardiovascular disease and obesity.

Importance: Several recent prospective studies have indicated that postdiagnosis physical activity (PA) is associated with a significant reduction in cancer recurrence, lower mortality, and improved QoL (Meyerhardt et al, 2006; Lynch et al. 2008). Despite increasing evidence for the favorable effects of PA in cancer survivor groups, prevalence rates for PA posttreatment range from 20 to 30% (Belizzi et al., 2005, Coups et al., 2005). Given the low PA participation rates in many cancer survivor groups, researchers have turned their attention to understanding the correlates of PA in cancer survivors. Understanding the key correlates of PA in cancer survivors is a critical first step to developing theory based behavior change interventions; however no studies to date have taken a comprehensive approach to examining PA and sport (PAS) correlates in colorectal cancer (CRC) survivors.

Sport participation is an understudied avenue in terms of promoting PA for health in cancer survivors.

Purpose: The overall aim of this study is to conduct a comprehensive population based survey of the correlates of PAS participation in CRC survivors. In this survey we plan to identify: (a) the pattern and prevalence rates of PAS in CRC survivors including sports participation, (b) the demographic, medical, behavioral and social cognitive determinants of PAS participation within a social ecological framework based on the Theory of Planned Behavior (TPB; Ajzen, 1991), (c) the most common motives and barriers to PAS including those specific to sports participation, and (d) the counseling and programming preferences for PAS including those specific to sports participation.

Methods: The research design is a cross-sectional population-based mailed survey. The Alberta Cancer Registry was used to identify all eligible CRC-S residing in Alberta. Participants were eligible if they were: (a) at least 18 years of age, (b) diagnosed in 2004, (c) able to complete a questionnaire in English, and (d) completed all adjuvant therapies. N = 2000 CRC survivors were mailed a self-report comprehensive survey assessing PAS participation, preferences, demographic, medical, environmental, and social cognitive variables from the TPB.



Results: Of 2,000 mailed surveys, n = 228 were returned as wrong address, n = 8 were deceased, and n = 1 had no history of CRC, reducing the eligible sample size to n = 1763. Thus far, a total of n = 630 have returned the survey yielding an initial response rate of 36.3% (630/1763). Data are in the process of being entered and cleaned for analysis. Of the 630 returned, 7 will be excluded from analysis on account of insufficient data, reducing the evaluable data set to 623.

Implications: Our survey study of CRC survivors is designed to specifically inform PAS behavior change interventions in this population. The data will help determine the theoretical variables salient to promoting PAS participation and whether variables differ by PA and sport. The data will also help determine if interventions need to be targeted specifically to personal factors (e.g. disease stage, age, sex and environment). Moreover, the data will help to determine preferences for sports and whether the promotion of sports is a viable alternative for meeting recommendations for PA in CRC survivors.

SPENCER-CAVALIERE, NANCY

University of Alberta

Insight Development Grant 2014

Inclusion in the “Field(s) of Dreams”?

“Field of Dreams” likely brings to mind the film about a farmer who is compelled by a whisper to build a baseball diamond (Gordon & Gordon, 1989). Today, the phrase is used colloquially in reference to sport dreams and also appears in the academic literature to represent meaningful sport involvement and achievement (Fay & Wolff, 2009; Weiss, 2008). For youth with impairments, the “Field of Dreams” may diverge in significant ways from that of their nondisabled peers. For example, they are likely to have fewer opportunities to meaningfully take part in sport (Moran & Block, 2010) and encounter far greater obstacles to participation (Spencer-Cavaliere & Watkinson, 2010). Furthermore, research on the sport experiences of these youth are often permeated with accounts of feeling excluded (Tsai & Fung, 2009), which leads many youth to choose participation in segregated sport settings (Wynnyk & Spencer-Cavaliere, 2013). However, a strong criticism of these segregated settings is that they perpetuate inequity (Fay & Wolff, 2009). This issue is addressed directly through this research by generating knowledge about how to provide legitimate opportunities for youth who experience disability to engage in sport. Grounded in a social model of disability (Charlton, 1998), the primary purpose of this case study is to investigate and understand the experiences of youth with impairments in a segregated athlete development program. The objectives are threefold: To identify the drawbacks and benefits of the program; to understand how the nature of the program informs youths’ understanding of disability and inclusion in sport, and: to contribute to a re-envisioning of inclusion in youth sport. Understanding the perspectives of youth who experience disability in sport is crucial to achieving the goal of this research, which is to inform more inclusive sport policies and practices in Canada.

STARKES, JANET

Queen's University

J. Baker, A.J. Logan, P.L. Weir

2005 (Completed: KT paper was not required)

Lifelong Commitment to Sport: Comparing Masters Athletes from Different Disciplines

The Sport Commitment Model (SCM; Scanlan, 1993, 2003) examines the factors that contribute, either positively or negatively, to sport participation. Although originally developed for youth, the model is beginning to be used with more diverse populations, including high performance athletes and adults. Our project applied this model to masters athletes, a group of older sport participants, to determine the nature of their commitment to their sport and the factors which are most important for their sport engagement. Using data from a variety of sports (marathon running, track & field, golf, bowling, triathlon, & ultra-endurance running), we aim to answer the following questions:

1. Does motivation and commitment to sport change across age in adult athletes?
2. Are there gender differences in motivation for sport?
3. Does motivation for continued participation change in high active (e.g., marathon, triathlon) vs. low active (e.g., golf, bowling) sports?

In previous years we have reported that: (a) sport enjoyment, involvement opportunities, and personal investment were the top three reasons for participation; (b) functional commitment (*wanting* to participate) determined sport involvement more than obligatory commitment (*needing* to participate); (c) functional commitment was slightly higher in older (> 65 years) than younger (40-65 years) athletes; and (d) male athletes were more likely to be motivated by extrinsic rewards, like trophies and prizes, than female athletes.

For this conference, we focused on the third question: namely, does the activity level of the sport affect motivation to participate? We compared the answers from our marathon runners (mean age 52 ± 5 years) with new data from recreational bowlers (mean age 65 ± 9 years). Bowlers showed higher levels of obligatory commitment (having to participate) and social constraints (e.g., pressure from other people) in their sport participation than marathon runners. Marathon runners were more likely to show involvement opportunities (e.g., being with their friends) and personal investment (time, money, effort) than bowlers. These findings could be attributed to the activity level of the sport, or other factors such as training time and team dynamics.

We also examined what factors predicted functional commitment ($R^2 = .76$, $N = 88$) and obligatory commitment ($R^2 = .62$, $N = 88$) in bowlers. Functional commitment was significantly predicted by personal investments and satisfaction, while obligatory commitment was significantly predicted by involvement alternatives, personal investments, satisfaction, and social constraints.

From these findings it seems especially important for athletes to feel a sense of satisfaction and personal investment in their sport. Although some questions remained unanswered, these data will provide us with insights on what motivates sport participation in a variety of disciplines. With attention to these



factors, we will be able to design sport programs for older adults that are suited to their needs, and will engage them for life.

STIRLING, ASHLEY ELISA

University of Toronto

Doctoral Stipend 2008

Athletes' Experiences of Emotional Abuse in Sport

There has recently been a growing understanding of the occurrence of sexual abuse of young athletes in sport, but very little research has attempted to explore other forms of abuse, such as emotional abuse, within this environment. In addition to the lack of empirical research, there is a substantial need for policy implementation and regulation within sport organizations. However, research on the processes by which abuse is experienced in sport is required to inform policy development and implementation. The purpose of my dissertation, therefore, is to explore the process by which emotional abuse occurs and is often sustained over the course of an athlete's career. The methodological approach used for the study is a constructivist and symbolic interactionist approach to grounded theory. Semi-structured interviews were conducted with 18 elite athletes (male, n=8; female, n=10). Data were analyzed inductively using open, axial, and selective coding techniques. The findings suggested a pattern of temporal stages by which emotionally abusive coach-athlete relationships develop and are sustained over time. Interestingly, the reports provided by the abused athletes suggested that they normalize emotional abuse and view it as an accepted means of athlete development. Comparisons are made with Cense and Brackenridge's (2001) temporal model of sexual abuse with children and young persons in sport. Implications are discussed for policy makers, and recommendations are made for future research.

STRACHAN, LEISHA

University of Manitoba

J. Côté, D. MacDonald

Standard Research Grants 2011

Project SCORE! A resource to help coaches deliver positive youth sport programs

Positive youth development (PYD) has advanced the idea that youth are resources to be cultivated; the development of young people involves fostering positive outcomes rather than simply reducing problem behaviors (Benson et al., 2006). Research points to the potential of youth sport as an avenue to support the growth of particular outcomes (MacDonald et al., 2011; Strachan et al., 2009). A recurring theme in this line of research, however, is the need to establish *deliberate delivery* so that positive outcomes are more likely. Project SCORE! (Sport COnnect and REspect) has been established to deliver a PYD program that supplements participation in an organized sport setting (www.projectscore.ca). Pilot research with coaches indicated that the 10 lessons were appropriate and valuable for athletes, coaches, and parents (Strachan et al., 2012). Subsequent research (Strachan et al., 2014) with sport camp instructors and youth participants pointed to a small positive change in initiative and positive personal growth for the instructors who completed Project SCORE! in a summer sport camp context. A larger study is currently in progress with various youth sport teams (i.e., volleyball, football). The current study is examining youth experiences (using the Youth Experiences Survey for Sport, MacDonald et al., 2012) before and after a Project SCORE! intervention. Data analysis is expected to be completed in the spring of 2015. Results will have a direct impact on youth and coaches alike; young people will learn valuable psychosocial skills while enhancing sport competence and participation while coaches will gain knowledge that will assist with their coaching development and create positive sport contexts for children and youth.

TEETZEL, SARAH JANE
University of Manitoba
Insight Development Grant 2014

Inclusion of transgender and transsexual athletes at the recreational and high-performance levels

Sport Canada currently lacks a policy for Canadian sport regarding the inclusion of transgender and transsexual (hereafter trans) athletes at the recreational and high-performance levels. As an emerging issue in sport ethics, the inclusion of trans athletes in both recreational and high-performance sport has not received much attention or research in Canada. Incorporating theories and ideas from sociology, philosophy, critical theory, kinesiology, psychology, gender studies, recreation studies, and political science, among other disciplines, this project seeks to gain insight into the lived experiences of Canadian athletes with emphasis on trans athletes' perceived barriers to sport participation. Through a policy analysis of international trans sport policies, a media analysis of discourse discussing athlete reactions to trans sport policies, and in-depth, semi-structured interviews with 15 athletes, 15 trans athletes, and 15 trans non-athletes, this study will provide insight into the barriers to inclusive sport in Canada. The findings of this study will provide knowledge and understanding of the complex topic of athletes' reactions to trans sport policies and issues, as well as the impact these policies have on the lives of athletes who identify as trans and athletes who do not. This study will also give athletes a platform to speak openly and honestly about these policies and to comment, criticize, or demonstrate their support for trans sport policies enacted by the International Olympic Committee and other countries, without fearing repercussions for voicing their perceptions and reflections. The results of this project will provide evidenced-based recommendations to decision-making bodies in Canada that design and implement sport policy, including Sport Canada and the Canadian Centre for Ethics in Sport. Moreover, knowledge gained in this study will be shared with teachers, coaches, teammates, sports administrators, allies, and trans resource centres to develop tools to facilitate positive sport experiences for all athletes in Canada.

THIBAUT, LUCIE

Brock University

L. Kikulis, W. Frisby, S. Vail, L. Hoeber, K. Babiak, L. Kihl

2005 (Completed: KT paper was not required)

A comparative case study of collaborative approaches to sport participation policy development and implementation

Recent public sport policy and legislation have identified collaboration as an important lever to enhance sport participation. The *Canadian Sport Policy* (CSP) articulates a goal of *enhanced interaction* where “the components of the sport system are more connected and coordinated as a result of the committed collaboration and communication amongst the stakeholders” (p. 19). Collaboration is also given legislative support in the *Physical Activity and Sport Act*. Of particular interest is the provision in legislation for the federal minister to enter into bilateral agreements with every province and territory. These agreements, supported by federal and provincial funding, enable each province and territory to prioritize and develop sport participation initiatives that are unique to their particular circumstances. Collaboration is also endorsed in policy through consultations where representatives of the sport community or those who desire to be part of the sport community are invited to participate in deliberations. The purpose of our study is to examine how organizational collaborative approaches (i.e., interorganizational relationships, deliberative democracy, and community development) in Canadian provinces can inform sport participation policy development and implementation.

Sport participation has recently gained prominence on federal and provincial government policy agendas following reports that have highlighted the decline in sport participation by Canadians (Canadian Centre for Ethics in Sport, 2002; Statistics Canada, 2000) and promoted the benefits of sport participation (Bloom, Grant, & Watt, 2005; Donnelly & Kidd, 2003). With a current policy environment supporting sport participation through collaborations, these are timely areas of investigation. The complexity of collaborative approaches, the unique federal-provincial bilateral agreements, and the contextual differences between provinces, requires a comparative case study design. Data collection will involve interviews with key policy makers representing various organizations and stakeholders involved in sport participation policy, analysis of sport participation policy documents, and where possible observations of collaborative deliberations.

Given the policy goal of *enhanced interaction*, findings will provide policy makers with an indication of the extent to which this goal is being achieved through interorganizational relationships, deliberative democracy, and community development. Sport policy implementers will become more informed and knowledgeable about what is working and what is not working and may learn from other provinces. Finally, this research will inform the literature on policy studies, organizational collaboration, deliberative democracy, and community development. Other social policy areas may also learn about the experiences of policy makers and stakeholders, how collaborative spaces are created and the limitations of these approaches.

TRUDEAU, FRANÇOIS

Université du Québec à Trois-Rivières

L. Laurencelle, R.J. Shephard

2005 (Completed: KT paper was not required)

Influence of quality physical activity in childhood on sport and physical activity later in life (2006-2009)

School physical education has influences on the total time of physical activity in youth and is becoming the predominant if not their exclusive source of moderate-to-vigorous physical activity. It is also an environment for the socialisation and the «tracking» of sport and physical activity habits.

The main objective of our research program is to explore how and why daily physical education during childhood and other early events can influence physical activity and sport behaviour later during adolescence and adulthood.

Participants were either from an experimental group that benefited from 5 h physical education per week vs, a control group with the normal program during primary school (40 min) during the year 1970 to 1977. They filled out questionnaires on exercise, including questions on physical activity frequency, attitudes, barriers and intention and participated to in-depth, semi-structured ethnographic interviews with the experimental and control participants previously involved in the Trois-Rivières study, to document 1) the meaning they give to physical education and sport for themselves and their children and 2) critical incidents and periods known to affect physical activity and sport. At this moment we have analyzed data for 49 participants.

Preliminary results indicates: 1) that the majority of participants, either from the experimental or the control group wants an increase of time for school physical education, 2) advantages in term of measured PA and sport participation in experimental 35 years old women in 1995-96 disappeared and 3) there is trend for a higher rate of sport participation in the experimental group (72.73% vs. 64.71%). The absence of significant difference could be partially explained by the end of the experimental program at the transition from primary to secondary school, where a tremendous decline in PA has been observed by many authors.

WALL, JESSIE

University of British Columbia

Doctoral Stipend 2014

Transitioning to elite, early specialization sport as joint goal-directed projects between parents and youth

Navigating transitions early in the athletic career can be a challenging process for athletes and their families. The decision to invest in a single sport, and pursue high performance, involves considerable resources and implications for youth development and future participation in sport. In spite of recent efforts away from early specialization, some sports (referred to as early specialization sports) require athletes to commit and invest in deliberate practice at an age where deliberate play is encouraged. This study seeks to understand how parents and athletes are jointly navigating the decision to commit and invest physically, psychologically, and psychosocially in early specialization sports. The research question guiding the proposed research is, how do parents and athletes jointly construct, articulate, and act on goals and strategies pertinent to the transition into elite, early specialization sport? An instrumental case study design will be used to organize each parent-athlete dyad as a case for individual and collective analysis. The action-project method (Young, Valach, & Domene, 2005) will be used to identify and describe the naturally occurring joint projects of parents and youth as they transition into elite sport. A purposive recruitment strategy will be employed to select parent-athlete dyads transitioning into “elite” figure skating as indicated by the LTAD stage outlined by Skate Canada (2010). Data collection will include video-recorded face-to-face meetings, video feedback-supported recall of thoughts and feelings, and biweekly self-report data collected through phone interviews for three months. Data analysis of individual cases will occur simultaneously over the course of the study using transcripts, a coding system, and a form of member check. This study is significant because (a) findings can assist parents and youth with a crucial transition in sport participation development, (b) themes emerging from this study may contribute to the ongoing development and implementation of the LTAD model for early specialization sports, and (c) to date no studies have examined the transition to elite sport from the perspective of real-time, goal-directed action co-constructed between the parent and athlete.

WATT, MARGO

St. Francis Xavier University

Standard Research Grants 2006

Relations among Anxiety Sensitivity, Physical Activity and Health-Related Outcomes

This research project has three main objectives. The **first objective** is to investigate the relationship between anxiety sensitivity (AS) and physical activity in a sample of young adults. Anxiety sensitivity (AS) is a dispositional variable referring to the fear of anxiety-related bodily sensations arising from beliefs that these sensations have harmful physical, psychological, and/or social consequences. High AS has been implicated in the development of psychopathology (e.g., anxiety and related disorders) but also has been implicated as a risk factor for physical pathology (low levels of physical activity). It has been suggested that, because exercise produces physiological sensations similar to those feared by individuals with high AS (e.g., elevated heart rate), it tends to be avoided. An alternative explanation is that a lack of exposure to these sensations resulting from physical inactivity promotes increased AS.

The **second objective** of this research project is to investigate childhood learning experiences related to the development of both AS levels and physical activity habits. My early work demonstrated links between retrospectively-reported childhood learning experiences and elevated AS in young adulthood, and found AS to mediate relations between childhood learning experiences and elevated health-related concerns in young adulthood. Although some attempts have been made to identify factors that may influence physical activity habits, knowledge in this area remains rudimentary. Research has found some evidence for the influence of social learning factors (e.g., parental reinforcement and parental modeling) on children's health-related activities. Collection of parental validation data will allow for corroboration of students' retrospective accounting.

The **third objective** of the present research is to investigate the process through which a brief cognitive behavioural intervention that includes physical exercise as the interoceptive exposure component decreases anxiety sensitivity (AS) in a non-clinical population. A brief cognitive behavioural treatment (CBT) that includes an interoceptive exposure (IE) component (i.e., running) has been found to be effective in decreasing fear of anxiety-related sensations in high anxiety sensitive (AS) women (see Watt, Stewart, Birch, & Bernier, 2006). The current research project included a process-based study which examined the specific role of the IE component in explaining intervention efficacy. This study found that the affective and cognitive reactions, and objective physiological reactivity, to the running were initially higher in high (vs. low) AS participants and decreased over IE trials in high (vs. low) AS participants. In contrast, self-reported somatic reactions, which were initially greater in the high AS participants, decreased comparably in both AS groups over IE trials. Findings were consistent with the theorized cognitive and/or habituation pathways to decreased AS.

WEISS, JONATHAN

York University

Standard Research Grants 2012

Thriving in Young Athletes with Autism Spectrum Disorder and Intellectual Disability

Participation in organized sport is an important activity for Canadian youth with and without disabilities, and has been linked to numerous benefits. Youth with autism spectrum disorder (ASD) and intellectual disability, who represent approximately 2% of the Canadian population, are largely marginalized from typical recreational, leisure, and social activities, even though they are physically integrated in the community. The overall goal of the current research is to understand the factors that lead youth with such disabilities into sport and to remain involved in sport, and data collection is currently underway. The current project aims to study relevant developmental assets and sport specific psychosocial experiences in athletes in Special Olympics. SCRI funding for this project began in January 2013. We have recruited approximately 400 caregivers of youth with intellectual disabilities involved in Special Olympics, 11-21 years of age. Parents completed measures of their children's developmental assets and skills. We are currently completing a face-to-face portion of the assessment, where youth are administered questionnaires that measure their sport specific psychosocial experiences: Motivation, social relatedness, physical competence, and feelings about sport. We will re-contact participants 12 and 24 months after they complete the questionnaires, to see who remained in sport, who dropped out, and who became further involved over that time period. Further, most research focuses on deficits and problems that need to be addressed, with relatively little focussed on preventative interventions or on ways of contributing to resilience and wellness. Informed by theories of typical development, the current poster presents data on individual and contextual predictors of athletes' thriving – their *Competence, Confidence, Connectedness, Character, and Caring*, and *Contribution* to one's self, family, and community. Athlete thriving has been found to be related sociocommunicative and cognitive ability, and the level of participation in home, school, and community contexts, and these variables explain why athletes with ASD thrive less than their peers. Future research is needed to explore how participation in Special Olympics is related to such thriving, and how this positive youth development may predict sport retention.

BRIAN WILSON

University Of British Columbia

2005 (Completed: KT paper was not required)

Corporate Environmentalism and the Canadian Golf Industry

Environmentalists, researchers, and others have expressed concern about the impacts of chemicals used on golf courses on wildlife and humans and implications of course construction for natural habitats. In Canada, environment-related ministries responded to these concerns by referring to golf courses in policies focused on (for example) water conservation and pesticide use. Sport Canada policies currently remind event managers to “comply with all environmental laws and federal principles on sustainable development,” and the 2002 *Canadian Strategy for Ethical Conduct in Sport* identifies “environmental sustainability” as an “issue of concern.”

The golf industry’s most pronounced/publicized response to these concerns has been the implementation of environmentally-friendly practices on golf courses. At the same time, golf’s governing bodies have highlighted the need for pro-environment practices – designing voluntary guidelines/certifications for association members. Importantly, industry members/affiliates are marketing pro-environment positions in environment reports and advertising. These developments are part of what is known as “corporate environmentalism.”

Few studies, however, focus on golf-industry decision-making around environmental issues and its corporate environmentalist practices. To address these gaps, this study aims to: (a) identify influences on golf industry decisions to adopt corporate environmentalist stances; and (b) examine how and the extent to which environmental practices are integrated into the industry’s organizational culture(s). The study is guided by conceptual work that is sensitive to the implications of “deregulation” (e.g., of industry activities) by government. The study is also influenced by conceptual work on institutional change that will guide a “mapping” of influences on industry. The following methods will be used: (1) Document analysis – with a focus on circumstances surrounding the appearance of environment-related material in golf industry trade publications and environmental reports; and (2) Interviews with golf superintendents and representatives from insurance companies, golf’s governing bodies, activist groups, and government. Practical objectives include offering policy-relevant feedback to government agencies.

WOOD, LAURA
University of Windsor
Doctoral Stipend 2010

The Social Nature of Women's Sport Participation

While research has found that people prefer to participate in sport with others, work examining constraints to participation has primarily taken an individual perspective. Further, recent research has found that participation as a group can facilitate women's persistence in recreational sport pursuits (Wood & Danylchuk, 2011). Recreational sport groups may be particularly beneficial for mid-to-older women as they can help negotiate or resist societal constraints related to gender and age (Green, 1998). However, recreational sport in the lives of older women is significantly underexplored, with a few exceptions (e.g., Heuser, 2005; Yarnal, Chick, & Kerstetter, 2008). Employing constraints as a framework represents one fruitful approach (Godbey, Crawford, & Shen, 2010). Examining constraints at various levels (intrapersonal, interpersonal, and structural) and their impact within a group may provide insight into the group's ability to operate and engage in activities as a collective, and the groups' role in helping individuals manage participation related constraints. Understanding the factors that influence participation in sport could assist in the development of effective solutions for increasing participation amongst this population. Thus, this study examined constraints and negotiation processes in a self-organized women's recreational sport group.

Data were collected using ethnographic methods and analyzed through a grounded theory approach. Although some constraints influenced recreation involvements negatively, the findings predominantly describe how the group collectively developed strategies that enabled them to negotiate most constraints. Specifically, findings highlight six ways in which the group of women negotiated constraints. These include: managing to participate without others, meeting the physical limitations of the majority, reconciling family commitments with group leisure, coordinating activities of group, maintaining connections despite distance, and new members adjusting to group. Importantly, a description of how constraints developed and were negotiated over time was also identified and described, thereby casting the negotiation process in a dynamic light.



WOOD, LAURA

University of Windsor

R. Snelgrove, M. Taks

Insight Grant 2013

Managing Sport Events to Maximize Positive Impacts

An increased awareness of how to manage sport events to facilitate impacts in the community (e.g., social, economic) is needed (Chalip, 2006; Coalter, 2004). The creation of strategies and tactics that facilitate positive impacts may also lead to an increased interest in creating sporting opportunities in more communities across Canada, ultimately increasing sport participation. Arguably, small-to-medium sized sport events represent the greatest opportunity for widespread impact (Taks, 2013). These types of events are distinguished from large scale or hallmark events like the Olympics, which often require large financial outlays, temporarily disrupt communities, and create sport opportunities for only elite athletes (Roche, 1994). In contrast, smaller events are most often operated using communities' existing infrastructure, draw minimally from local tax dollars, are easier to manage with respect to crowding and congestion within the host city, and are more accessible to a wider spectrum of athletes (Higham, 1999). This study extends O'Brien and Chalip's (2008) theoretical model of event leveraging that describes the strategies and means by which events can be managed to facilitate economic and social impacts. Data will be collected in the context of three small-to-medium sized sport events that are being held in a medium sized city in Canada, over a two-year period. This time horizon will allow for an identification of factors that contribute to the adoption of leveraging from one year to the next, knowledge realization and transfer following an event, and how events are uniquely managed relative to a larger portfolio. All three of these areas of focus are limitations in the existing leveraging model. A mixed method approach will be used to collect the data. Questionnaires will be completed by event spectators and community members, and interviews will be held with event organizers, city officials, and local business owners.



YUNGBLUT, HOPE

**Laurentian University
Doctoral Stipend 2009**

Views of Sport and Physical Activity of Early Adolescent Female Youth

Over the past decade there has been an increased interest in the physical activity levels of children and adolescent youth from health perspectives (e.g., obesity and diabetes prevention) and psychological perspectives (e.g., self-esteem and social development). Researchers have indicated that female youth are particularly vulnerable to withdraw from sport and physical activity programming during early adolescence (see Healthy Active Kids Canada, 2009). In order to develop relevant sport and physical programs it is first imperative to understand the lived experiences of those for which the programs are intended. Within the current research project, the researcher aims to elucidate the views held by early adolescent females about sport and physical activity through the use of in-depth individual face-to-face interviews conducted using an interpretive phenomenological approach. Each participant will be interviewed two times, the first interview will last about 60 minutes and follow the interview guide, the second interview will allow for further explanation and clarification from the participants as themes begin to emerge from the collected data. Finally, focus groups will be conducted to allow participants to provide feedback on the analysis of the study data. Dissemination of research findings will focus on the barriers that prevent girls from participating in physical activity and aspects that enable girls to participate in physical activity in early adolescence. Further, the researcher will delineate the differences between physically active and inactive girls and make recommendations for engaging inactive girls in physical activity programming. The researcher will also focus on the effectiveness of the methodology in sport and physical activity research with adolescent female youth.



Sport Canada Research Initiative Conference

October 30, 2014

Kanata, Ontario

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BALIS, DANIEL S.

University of Manitoba

Standard Research Grant 2007

Goal Conflict as a Barrier to Regular Physical Activity

Project Summary

Many people who adopt the goal of improving physical activity do not succeed. The aim of this research was to examine goal conflict as a uniquely contributing factor to the low rate of success. Our experiments showed that goal conflict can create a barrier to regular exercise by (a) lowering performance of exercise for up to 2 weeks later, (b) preventing intrinsic enjoyment of exercise, (c) lowering mood and state self-esteem, and (d) conditioning negative emotions to exercise-related objects. They also showed that these negative consequences can be avoided through the application of specific interventions.

The research yielded 3 main conclusions. First, it is a mistake to equate goal conflict with low motivation for exercise. Goal conflict still happens to individuals with high exercise motivation, still disrupts their mood state and exercise performance, and requires a unique solution. Second, goal conflict is at least partly a matter of perception. Subtle differences in the presentation of exercise or other goals can modulate this perception (and its negative consequences) without changing people's "to-do" lists or available time, resources, or strategies for accomplishing multiple goals. Third, the negative effects of goal conflict can be avoided when people are encouraged to (a) schedule exercise in advance, (b) exercise because of the high costs of inactivity, and (c) exercise because it will actually benefit their other personal goals. Such encouragement forms little part of the standard message promoting exercise, which emphasizes "how much" rather than "when" to exercise, positive rather than negative outcomes that may be achieved/avoided through exercise, and positive outcomes for health before any and all other goals.

Research methods

The principal investigator worked together with 15 honours and graduate research associates on this research. Over 3 years, we screened over 1,000 student research-participants with high exercise motivation into a series of laboratory experiments. Ethics approval was granted by the University of Manitoba Research Ethics Board, and all participants provided written informed consent in advance.

In our typical experiment, after making a commitment to exercise, participants were randomly assigned to conditions that prompted them to think about either their conflicting academic goals, or their consistent exercise goals. Follow-up measures of the participants' mood, motivation/intentions, and exercise frequency allowed us to test the effects of this brief exposure to goal conflict, while holding other factors constant.

We also developed and validated a brief, self-administered questionnaire measure of chronic goal conflict with exercise. We used this measure in several prospective studies of exercise behaviour, occurring either naturally or in response to specific interventions.

Research results

Our experiments in year 1 showed that goal conflict can create a barrier to regular exercise by (a) lowering performance of exercise for up to 2 weeks later, (b) preventing intrinsic enjoyment of exercise, (c) lowering mood and state self-esteem, and (d) conditioning negative emotions to exercise-related objects.

The main focus of research in years 2 and 3 was to design and/or apply interventions to manage goal conflict effectively. We specifically examined the effects of (a) scheduling exercise in advance, (b) receiving promotional messages that emphasized the costs of inactivity vs. the benefits of regular activity, and (c) reviewing brochures or videos that emphasized the benefits of exercise for health vs. alternate goals. Our findings suggest that the damaging effects of goal conflict for exercise performance or enjoyment can be avoided.

Most of these studies relied on student-participants and examined goal-conflicts between exercise and either academic or social goals, which were natural to the participants' social-developmental context. Future research is needed to extend the findings and implications of this research to other social-developmental contexts.

This research also yielded durable outcomes. Our questionnaire measure of goal conflict with exercise can be used in future research. Also, our exercise-promotion videos, based on intergoal facilitation, are of a professional quality suitable for wider use and distribution. Our final report to SSHRC includes a complete listing of other academic and non-academic contributions that resulted from this research.

Policy implications

This research has potential policy implications in three areas: increasing sport/exercise participation (directed to federal/provincial-territorial ministers for healthy living), increasing representation of women in sport/exercise activities (directed to federal/provincial-territorial sport agencies), and active transportation (directed to municipal governments and community recreation agencies).

With respect to increasing exercise, two implications stand out particularly. The first is that poor adherence to exercise has psychological causes and remedies apart from individuals' knowledge of health-related risk, which is still the main target of public discourse and interventions in this field. The second is that goal conflict is likely to be fueled by a social organization of sport/exercise activity that keeps it separate from (and therefore apparently costly to) individuals' other goal pursuits. To address goal conflict, public policies and messages can shift toward the notion of sustainably integrating sport/exercise participation with other pursuits.

The *Actively Engaged* policy on gender equity in sport notes in its context that "traditional explanations of overt barriers or lack of opportunity" cannot fully account for the underrepresentation of women in sport (Canadian Heritage, 2009). However, goal conflict is *not* an overt barrier, it arises only when there is opportunity, and it may disproportionately affect women who are participating in the paid labour force while having major responsibilities for housework, child care, and elder care. Thus, although this research was not targeted to women, it may shed light on a problem with sport/exercise participation that holds more women back than it does men.

Active transportation provides a way to pursue recreational sport/exercise participation in tandem with other goals. As such, it may provide a way out of goal conflict. Thus, an already growing infrastructure for active transportation represents one kind of support that should be continued from the perspective of this research. Such support both complements our current regime of incentives and raising awareness of the benefits of sport/exercise participation, and specifically may enable Canadians to re-integrate sport/exercise participation in their busy lives.

Next steps

Several key unanswered questions and related social issues are these:

- How does goal conflict shape sport/exercise participation over the life-span?
- If goal conflict acts like a persistent brake on sport/exercise participation, what social-psychological factors might encourage people to lift the brake and engage, despite their fears?
- Due to multiple roles and responsibilities, does goal conflict represent a more significant barrier to regular sport/exercise participation by women than by men?

Key stakeholders and benefits

- Public Health Agency of Canada, Health Promotion Branch
- Manitoba Healthy Living, Seniors and Consumer Affairs
- Canadian Fitness and Lifestyle Research Institute
- ParticipACTION
- Physical and Health Education Canada
- In Motion
- Canadian Association for the Advancement of Women and Sport and Physical Activity
- Sport Manitoba and other provincial sport organizations
- Infrastructure Canada

BAKER, JOSEPH

York University

P. Weir, J. Starkes

Standard Research Grant 2007

Aging Expectations and Physical Activity Behaviours

Project Summary

A developing area of research focuses on 'successful aging', which has the central objective of discovering significant predictors of optimal health in later life so that risks of disease and disablement can be targeted and reduced. From this research, there is evidence indicating beliefs that older adults have of their own aging process (aging expectations) play an important role on health and healthy behaviours (e.g., sport and physical activity) throughout later life.

The current research project develops our understanding of this area by examining the relationship between older adult's expectations of aging and their involvement in preventive health behaviors such as sports and physical activity. Previous evidence shows that older adults who expect decline with age are less likely to engage in 30 minutes of moderate-to-vigorous walking activities in the previous week compared to those with affirming aging expectations; however, the impact that aging expectations have on other modes of physical activity has not yet been explored.

As a result, the main objective of this research was to discern the influence that aging expectations have on multiple kinds of physical activity behaviour.

Research Methods

249 adults aged 40 and greater (average age was 70 years) completed a multi-scale pencil-and-pen survey. Recruitment took place in the Greater Toronto Area. Participants were all community-dwelling as they were recruited from retirement housing complexes, recreational activity groups (both physical (e.g., mall walking groups) and cognitive (e.g., bridge)), and senior centers. Each individual was given a survey, a stamped and addressed envelope. The questionnaire surveyed a) multiple physical activity practices and preventive health care seeking behaviour (getting a routine annual physical exam from a health care professional), b) mental, cognitive, and physical aging expectations, and c) a number of important social, demographic, and clinical factors that are important and relevant to the associations being tested (e.g., gender, ethnicity, cultural background, income, education, chronological age, depression, reports of pain, restriction of daily activities, and chronic conditions). Ethics approval was granted from York University and all participants had to provide informed consent.

Research Results

Are aging expectations associated with multiple kinds of physical activity behaviour?

Higher aging expectations were found to significantly relate overall physical activity, participation in strenuous sport, and lawn work or yard care. Again, an examination of the aging expectation sub-scales revealed that these overall effects were driven by the physical health aging expectations only. Furthermore, solely physical aging expectations were also associated with participation in light sport activities, moderate sport activities, and light housework. Findings suggest that expectations of decline with age, namely declines in physical

health, are associated with decreased reports of participation in various modes of physical activity. As a result, promoting positive aspects of aging may help maintain levels of physical activity across the lifespan.

Policy Implications

Our results may have considerable policy implications given the increased attention to ‘Aging at Home’ among many provincial and national health agencies. In general, they suggest that health messaging to older adults should reflect a more optimistic perspective since one’s expectation towards their aging influences their involvement in pro-health behaviors. However, we recognize the difficulties in implementing a ‘pro-aging’ messaging campaign in a society that values youth and may have unreasonable expectations of what constitutes ‘health’ and ‘fitness’ particularly in older age groups.

Next Steps

The most significant ‘next step’ is the development of an intervention framework with older adults, in an attempt to ‘disarm’ the negative stigma associated with older age. We anticipate that this will not be easy (if possible at all) given the social focus on youth, beauty, and fitness – all concepts not normally associated with the aging person.

We also anticipate continued examination of the role of aging attitudes and expectations on other preventive health behaviours (e.g., diet, doctor visits) and other aspects of health (e.g., self-concept, social engagement).

Key Stakeholders and Benefits

- Provincial Ministries of Health, Health Promotion and Sport
- Health Canada
- Sport Canada
- Canadian Association on Gerontology
- Provincial Associations for Older Persons, Aging, and Gerontology

BEAULAC, JULIE
University of Ottawa
Doctoral Stipend 2006

A Promising Community-Based Hip-Hop Dance Intervention for the Promotion of Psychosocial and Physical Well-being Among Youth Living in a Disadvantaged Neighbourhood

Project Summary

This project involved a partnership between the University of Ottawa and three community partners: South-East Ottawa Community Health Centre (SEOCHC), Culture Shock Canada, and Heron Road Community Centre. Prior to implementing a new physical activity program in South-East Ottawa, an initial study sought to better understand the needs, barriers, and facilitators to youth participation in physical activity in order to conceptualize the new intervention. This study determined that the young people and parents were aware of the benefits to youth participation in physical activity but that contextual constraints need to be addressed. The second study of this project consisted of an implementation and outcome evaluation of a new weekly hip-hop dance intervention. The implementation findings demonstrated that the program reached the intended population and provided valuable feedback on the strengths and weaknesses of this new program. The outcome findings were mixed. In general, the quantitative results did not support the program objectives; however, qualitative findings were more positive, and suggested that the hip-hop dance intervention is a promising program for the promotion of youth well-being.

Research Methods

The intervention conceptualization study involved a literature review and three focus groups: seven male youth; 10 female youth; and 13 parents/guardians. Youth participants were 11 to 14 years of age. The evaluation of new intervention study, involved ninety-one youths 11 to 16 years old. The youths were socially and ethno culturally diverse; most were female (82.4%). The evaluation involved a non-experimental pre-test/post-test design from the perspective of youth participant, parent/guardian, and program staff. Mixed methods were used including document review, observation, interview, focus group, and questionnaire format.

The intervention studied was a new, free community-based hip-hop dance program, implemented in South-East Ottawa for young people between 11 and 16 years of age. The program was designed to break down some of the barriers to participation by providing a free, relevant, and supervised activity, in an accessible location, that included transportation assistance and participation incentives. Two program formats were offered, girls-only and co-ed, across two program sessions: a winter session (13 weeks) and a spring session (12 weeks); different young people participated in each session. A final showcase production was held one week after the final class of each session where participants performed in front of their families, friends, and other community members. The young people also attended pre- and post-program evaluation classes.

The program was delivered according to a structured intervention manual. Two dance instructors from Culture Shock Canada taught the classes at a local community centre. A balance between learning new hip-hop dance skills and fostering positive peer and staff relationships was sought in order to maximize youth involvement and positive outcomes. A youth coordinator and health promoter for youth were also staffed to provide youth with transportation assistance, on-site supervision, and to assist with coordination and outreach.

Research Results

Findings from the first study demonstrated that the young people and parents were aware of the benefits of youth participation in physical activity programs. Hip-hop dance was reported as an appealing program option. Limitations of this study are the small sample size and the use of one method. Nonetheless, the intervention conceptualization study was important in informing program development and implementation, including decisions around offering co-ed and girls-only formats, program timing, participation incentives, and transportation assistance. Findings also demonstrated the importance of involving the community in developing and implementing new programs.

Findings from the second study demonstrated that program implementation was moderately satisfactory. Strengths included: accessibility, relevance and challenge in learning something new. In addition, the participants described a mainly positive/non-competitive environment and positive connections with peers and staff. Not unlike other community-based programs for youth and disadvantaged populations, almost 50% of the youths discontinued participation in the program. Other key areas of weakness included inconsistencies in the program timing, adult management of youth behaviour, and transportation, in addition to the short length of the program and unachieved outreach objective. Improving the program would likely improve youth retention and impact. Importantly, however, the youth participants in this program reflected the target population and reported overall satisfaction with the program. Participants, parents, and staff agreed that the program should be continued, with modifications, likely requiring new resources. A strength of this study was the use of multiple methods; however, low participation rates were problematic.

This program sought to promote positive development and well-being among youth living in a disadvantaged, multicultural urban community. In general, the quantitative results did not support these objectives except for a statistically significant improvement in perceived hip-hop dance skills, likely due to small sample size, high attrition, low intervention dose, and implementation problems. However, qualitative findings suggest that the intervention is a promising program for the promotion of youth well-being. More specifically, almost all the young people, staff, and parents reported an improvement in hip-hop dancing and/or other related skills, and in self-confidence. In addition, many described improved behaviours, an increase in participation in physical activity, trying new activities, and a transfer of skills to other activities, improved physical health, shyness, mood and relationships; some also described an increase in respect for others or for diversity. Less commonly, the youths and parents also indicated that health overall and/or attention improved; a few also reported improved school performance. These findings are consistent with other research on the benefits of participation in physical activity and positive youth development programs. Although these findings suggest a promising program, they need to be interpreted in light of certain limitations, such as the small sample size and non-experimental design of the research; as a result, we cannot attribute participant changes to involvement in this intervention per say.

Policy Implications

The study supports consideration of both environmental and individual level factors in the promotion of physical activity. Currently too much emphasis is placed on individual level factors; Further, additional resources may be necessary to appropriately meet the needs of lower-income and culturally diverse young people.

The study suggested promise in offering weekly physical activity programming for youth living in a disadvantaged community. Two particularly important program-related factors were relevance (Hip-hop

dance was reported as highly relevant for intervening with youth and accessibility (i.e., program cost, location, and transportation.). Promoters of physical activity should consider these two critical factors in the development and implementation of interventions.

The evidence supports collaborative, multi-setting interventions in adolescents. Attempts should be made to combine community-based interventions with those targeting other settings (e.g., school, home) as the problem of physical inactivity, health, and social problems, is complex. This research also demonstrated the importance of involving the community in developing and implementing new interventions.

Next Steps

A more rigorous study is needed to confirm the benefits of this and other community-based physical activity programs. Future intervention research needs to include more diverse and lower-income youth in order for findings to be generalizable, and to investigate a broader range of outcomes – beyond physical health. Studies investigating implementation and other dimensions of interventions are also critical to the effective study and dissemination of new programs.

Key stakeholders and benefits

- Public Health Agency of Canada, Health Promotion Branch
- Ontario Physical and Health Education Association
- Ontario Ministry of Health and Long-Term Care
- Active Healthy Kids Canada
- Canadian Association for the Advancement of Women and Sport and Physical Activity (CAAWS)

MATHIEU BÉLANGER

University of Sherbrooke

J. Beauchamp, C. Sabiston, J. O'Loughlin, M. Mancuso

Standard Research Grant 2010

Monitoring Activities of Teenagers to Comprehend their Habits (MATCH) Study

Project Summary

The “Monitoring Activities of Teenagers to Comprehend their Habits” (MATCH) study aims at generating a better understanding of how sport participation evolves during childhood and adolescence. In this investigation, emphasis is placed on the stratification of analyses by sport type. 843 Grade 5 and 6 children were recruited in the 2011-12 school year. Since then, participants answered questionnaires three times per year. Data are also collected from school audits, phone interviews with parents, and individual yearly interviews among a subsample of 25 participants. Follow up will continue until 2018. Although the main analyses are to come, early results show that: We were able to distinguish five different sport participation profiles among active youth. Types of sports in which youth engage are influenced by motives, basic psychological needs, school environment, school policies, various barriers as well as sports in which their parents participate.

Research Methods

A total of 837 grade 5 and 6 students were recruited in 17 New Brunswick (NB) schools. MATCH participants complete self-report questionnaires every four months from grade 5 or 6 until the end of grade 11. The initial data collection was completed in fall 2011. Questionnaires collect information on types of sports practiced and frequency, and on potential determinants of participation. Beginning in spring 2013, a sub-sample of 25 adolescents took part in individual interviews. These are repeated annually in a private room provided by schools. Parents (or guardians) of students took part in a telephone-administered questionnaire. Finally, a school environment assessment was conducted for every school in collaboration with school representatives.

Research Results

The main analyses are ongoing. Here are results from the first two years of the study:

- More boys and girls participated in non-organized (80.2% and 77.8%) and individual sports (75.6% and 80.4%) than organized (44.5% and 44.6%) and group-based sports (60.3% and 53.7%).
- Students who endorsed enjoyment motives were more likely to engage in organized sports and those with higher competence motives were more likely to participate in group-based sports as well as achieve physical activity recommendations.
- Schools with favorable active commuting environments had higher levels of participation in organized sports.
- School with policies supporting sport participation had higher levels of participating in non-organized physical activities.
- Perceived barriers towards sports were best represented as two interrelated factors representing internal (e.g., “I am not interested in sports”) and external (e.g., “I need equipment I don't have”) dimensions. Girls reported more external barriers compared to boys. Adolescents who were meeting current Moderate-to-vigorous physical activity (MVPA) guidelines reported fewer barriers than adolescents not meeting guidelines. Perceived internal barriers were inversely related to MVPA.

- There was a positive association between psychological need satisfaction of competence, autonomy, relatedness and MVPA. Longitudinally: as psychological need satisfaction increased over time, so does MVPA levels.
- Parents' participation in racket sports was associated with a significantly higher likelihood of youth participating in racket sports. There were no significant associations for the other types of physical activities. The probability that parents and youth participated in the same types of activities was moderate to high, whereas the probability that neither parents nor youth participated in a particular type of activity was low to moderate.
- Our first round of qualitative interviews led to the identification of five distinct sports participation profiles: specialists, regulars, explorers, outdoor enthusiasts, and accidentally active. These were distinguishable based on preferred types of sports, commitment towards various types of sports, variety in types of sports practiced, and contexts in which sports are practiced (e.g., individual vs group, organised vs unstructured, competitive vs recreational). Participants in these profiles were also distinguishable based on motivation for sport participation and basic psychological need satisfaction of competence, autonomy, and relatedness.

Policy Implications

Recognizing the importance attributed by children to enjoyment motives, sport practitioners, schools and communities hoping to increase participation in organized sports should aim at making their activities interesting, fun, and stimulating.

To increase participation in group-based sports, interventions may need to incorporate consideration of competence motives by reinforcing skill development and enhanced performance and offering realistic and attainable challenges through sport participation opportunities.

To increase satisfaction of psychological needs (i.e. Competence, relatedness and autonomy) which in turn can increase MVPA among youth, Schools should: 1- Provide opportunities (e.g. recess, lunch) for youth to practice new skills with the help of a sport professional and encourage them to keep practicing these skills in order to become more at ease and feel more confident (competence), 2- Allow students to choose activities according to their interests. This will group together youth with similar objectives and facilitate development of relationships (relatedness), and 3- Offer opportunities for youth to choose the activity in which they want to engage without questioning their motives or trying to control the outcomes.

School environment were strongly related to sport participation, and most specifically to participation in organised sports. Schools and school boards could work together to implement active commuting programs, such as "Walking school bus" programs, active transportation days, and modify policies or create infrastructures that promote active commuting to school, such as allowing skateboards on school premises, offering bike racks, and ensuring that crossing guards are present at pedestrian crossings.

Parents' sport participation may have an influence on types of activities practiced by youth, especially for activities that are relatively less popular among youth. Communities and sport organizations should offer more opportunities for parents to be active such as adult sports teams and walking/running/biking clubs as a strategy for increasing sport participation in youth.

Internal barriers to sports appear to have a larger influence on MVPA than external barriers: Programs aimed at increasing sport participation in youth should be discussed with youth, and their barriers, specifically their internal barriers should be taken into consideration prior to implementation.

Next Steps

With recently announced renewal of funding, MATCH will be pursued for three more years. This will enable the follow up of adolescents at a critical period of behavioural shaping, when fewer individuals consolidate adherence to different types of sports. During this period we will also continue to analyse data collected so far. Among others, planned analyses will allow to:

- Describe the association between type of motive and maintenance of different types of sports in youth;
- Test if change in motives is associated with change in level of participation in different types of sports;
- Test if change in basic psychological needs satisfaction is associated with change in the practice of different types of sports;
- Explore the sport participation related experiences of participants in various types of sports;
- Better understand the processes underlying the Sport development model.

Key Stakeholders and Benefits

Information emanating from the MATCH study is relevant for a wide variety of potential knowledge users, including:

- Sport New Brunswick
- The Healthy Eating Physical Activity Coalition
- Department of Education and Early Childhood Development of the Government of New Brunswick
- Department of Healthy and Inclusive Communities of the Government of New Brunswick
- ParticipACTION
- Canadian School Boards Association
- Public Health Agency of Canada
- Active Healthy Kids Canada

BEWELL-WEISS, CARMEN

York University

Doctoral Stipend 2006

Predictors of Excessive Exercise in Anorexia Nervosa

Project Summary

The present study was aimed at determining a model that would predict excessive exercise in individuals with anorexia nervosa. This is very important because exercising excessively while underweight, as can be the case in certain forms of sport participation, has been shown to have dangerous health consequences, and has been linked to negative prognosis and higher psychological distress. At the same time, in other populations, exercising has been shown to have positive health effects (both physical and psychological). Thus, the present study examined the associations, both positive and negative, between exercise and various psychological and behavioural variables.

Research Methods

Participants were 153 patients admitted to an inpatient treatment program for anorexia nervosa. Excessive exercise status was defined as a minimum of one hour of obligatory exercise aimed at controlling shape and weight, six days per week in the month before admission. This definition of excessive exercise has been used in other published studies looking at exercise in anorexia nervosa, and, although it may appear that one hour per day of exercise is not very much, it is important to note that these individuals are at such low body weights, that any amount of activity could be considered too much. Also, many of the participants exercised much more than the one-hour minimum.

The psychological and behavioural predictors used in this research had all been previously identified in past research as independent predictors of excessive exercise, but they had never been combined in the same model. The advantage of combining them was that we could see which predictors remained strong even after their shared predictive capabilities were accounted for. For example, it could have been true that depression and self-esteem were significant predictors when run separately, but if the reason they were associated with exercise was similar (e.g., negative view of self), then one of them would likely not remain a significant predictor when both were included in the same model. All the behavioural and psychological predictors were measured using widely-used and validated self-report measures.

Research Results

The overall model found that while excessive exercise was indeed linked to negative factors, such as increased dietary restraint and higher levels of depression, it was also associated with lower levels of obsessive-compulsive symptoms and higher levels of self-esteem. It is interesting to note that past research has found the opposite relationship between obsessive-compulsive symptoms and excessive exercise. Finally, excessive exercise was linked to the restricting form of anorexia nervosa (vs. the bingeing/purging subtype), which is also in contrast to the findings of previous research; however, there is some evidence to suggest that the differences in the current study may have been driven more by the presence or absence of binge-eating rather than purging. These results would suggest that excessive exercise is related to both positive and negative factors, and they suggest that treatment programs, which usually encourage their patients to stop exercising entirely, should consider both the potential positive and negative effects of this recommendation. They also point to the possibility of incorporating some form of moderate exercise into treatment.

To our knowledge, the present study is the first attempt to identify a model predicting excessive exercise in patients with AN, using previously identified predictors from the extant literature. It is important to note, however, that in some cases, we used different measures of specific variables than other studies used. Although all of the measures that we used have been widely utilized and have been shown to have good validity and reliability estimates, our understanding of excessive exercise in AN would be strengthened by replications of the present model by independent research groups, using the same measures we used.

Our study was also limited in that all of our participants had been admitted to inpatient treatment at the time of assessment and none were actively engaging in exercise when they were completing their questionnaire packets. Thus, it is possible that some or all of the findings may have been a reaction to not exercising. It would be a worthwhile effort to try to assess patients before they come into the treatment program to see if our current model of excessive exercise in anorexia nervosa holds. Also, it is not clear how well the results of a model of excessive exercise developed using inpatients would extend to individuals with anorexia nervosa in the community (who also often do not seek treatment and who may have less severe eating disorders).

Finally, because our study did not control for any variables (e.g., randomly assigning one group to exercise and comparing them to a group that does not exercise), we can only talk about relationships among the predictors and excessive exercise. We cannot say that the predictors cause excessive exercise, or that excessive exercise causes the predictors. It is also just as possible that they coexist together because of some other, unmeasured, variables. Future prospective research is needed to begin to determine the direction of the associations we found.

Policy Implications

The current recommendations for individuals presenting to intensive treatment for anorexia nervosa include stopping exercising entirely, as it has been shown to be associated with negative psychological variables and negative treatment outcome. The present findings partially support these recommendations, but do raise the possibility that there are positive aspects to exercising as well. Thus, the findings would suggest that further research is needed to determine the relationship between exercise/excessive exercise and the course/treatment of anorexia nervosa. It may be that some exercise, such as certain forms of sport participation, can be usefully incorporated into treatment (perhaps later in treatment as weight has begun to be restored), as long as efforts are made to prevent the exercise from becoming excessive.

Next Steps

Future research is needed to replicate the present model, determine the directions of the relationships between the predictors and excessive exercise, and evaluate the impact of incorporating some form of exercise, such as certain forms of sport participation, into treatment for anorexia nervosa.

Key Stakeholders and Benefits

At this point, the current findings may be useful for health professionals who work with individuals with anorexia nervosa and physical activity and sport leaders dealing with participants with this condition.

BOUCHER, ROBERT

University of Windsor

J. Dixon, V. Girginov, M. Holman, S. Martyn, M. Taks

Standard Research Grant 2006

Culture of National Sport Organizations and Participation in Sport

Project Summary

This project examined the relationship between the culture of Canadian national sport organizations (NSOs) and participation in sport. The overall goal was to better understand and ultimately increase the effectiveness of policies aiming to promote sport activities such as the Sport Participation Development Program (SPDP). Generally, NSOs subscribed to a humanistic-encouraging type of organizational culture, but they did not actively promote the values of sport participation. The SPDP is perceived as a source of extra funding rather than an integral part of the strategy of NSOs. Both Sport Canada and NSOs need to embrace sport participation as a cultural process to improve its strategic management.

Research Methods

Ten Canadian NSOs participating in the 2007-2008 SPDP formed the focus of the study including Alpine Skiing, Athletics, Badminton, Ten-pin Bowling, Cycling, Gymnastics, Hockey, Rowing, Swimming and Volleyball. They represent sports with different histories, constituencies and structures, and varying degrees of professionalization. Four main methods and instruments were employed for data collection including:

- literature review (research, policy documents and reports);
 - semi-structured interviews (except Rowing) – utilizing an interview guide based upon the cultural dimensions of sport organisations (Smith & Shilbury, 2004);
 - monitoring and evaluating NSOs' websites using the eMICA model (Burgess & Cooper, 2000); and analyzing the use of the Internet for establishing and maintaining relationships with sport participants utilizing the Relationship-building Process Model for the Web (Wang, Head, & Archer, 2000);
 - on-line surveys with members of NSOs (the Organisational Culture Inventory (Cooke & Lafferty, 1989).
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Research Results

The participating NSOs showed a humanistic-encouraging primary style culture characterised with being supportive of others, resolving conflicts constructively and helping others to grow and develop. However, no NSOs' organisational culture was homogeneous as four subgroup cultures emerged: 'board member', 'coaching staff', 'middle management' and 'senior management'. This demonstrates that organizational culture is always multi-dimensional and cannot be determined by the values of one group only. A limitation of this survey was its response rate of 22% (N = 37).

Four clusters of cultural interpretations of sport participation amongst the NSOs emerged:

- 'elite culture' following a top-down approach where international success is used to promote grass-roots sport (e.g., Alpine Skiing, Athletics, Hockey);
- 'mass culture' suggesting a bottom-up process which naturally leads to elitism (e.g., Gymnastics, Swimming);
- 'sessional culture' – suggesting that sport participation 'dies when the grant dies' (e.g., Volleyball, Cycling);

- 'place culture' - suggesting that sport participation is promoted only in certain geographic areas (e.g., Badminton, Ten-pin Bowling).

There has been a distinct lack of awareness about the existence, purpose, implementation and how the SPDP would benefit the NSOs both within the NSOs staff and the general public. The SPDP was seen as a departmental responsibility and not as a core business of the entire NSO.

NSOs have largely perceived the SPDP as an additional source of funding and not as an opportunity to address the fundamental ongoing issue of sport participation. The program has not been incorporated into NSOs' strategic plans to ensure a better synergy between different departments.

Most NSOs were lacking the capacity to successfully run the program. Ownership of SPDP is an issue for some NSOs as they outsource the delivery of the program to private agencies over which they have little or no control.

The introduction of the SPDP has reinforced both the competition for funding and participants amongst NSOs, and an environment which favours those NSOs with better structures and resources that can afford the resources to implement sport participation initiatives. Less structured and funded NSOs struggled to cope with the expectations presented by the SPDP.

There is a tension between the LTAD model and the objectives of the SPDP program promoted by Sport Canada. These are based on two different philosophies and NSOs were confused about their relationship. Tensions also exist between NSOs and PSOs resulting in mistrust and resistance to implementation of national programs.

The Internet technology provides great advantages and the ten NSOs have been receptive to the use of the Web for promoting sport participation. However, they are still failing to utilise the opportunities offered by the interactive technology to effectively communicate their objectives and to develop relationships with members.

Regular communications with Sport Canada are critical to any project. In this respect Sport Canada could do more to facilitate research projects concerning its policies and the work of NSOs.

Policy Implications

NSOs need to change their perceptions about the SPDP and ensure that it is well integrated into their strategic plans. The values and practices of the SPDP should not be seen as a project managed by an officer but as an essential part of the mission of the organization, which is embraced equally by all members. NSOs need to better utilize their websites to promote a culture of sport participation.

Sport Canada needs to establish a developmental strategy to support the SPDP in three key areas:

- Establishing clear conceptual and practical linkages between the LTAD and SPDP so the two programs complement each other;
- Putting in place a capacity-building strategy to help NSOs develop the organizational capabilities needed to successfully implement the program;
- Implementing a systematic promotional campaign to assist in enhancing both the public and NSOs' awareness about the SPDP.

Next Steps

Sport participation needs to be appreciated as a process of acculturation where NSOs are cultural agents, not just as a resource or opportunity to attain other goals.

More strategic examinations into the role of the World Wide Web is needed in promoting a participation culture by investing in better designs, functionality and communications with NSOs' constituencies. Further research is needed in devising Web-based relationship strategies for initiating and sustaining participation in sport. Academia can make a significant contribution to the work of NSOs in this regard, as it possesses a great resource: technologically savvy and sport-active students. The questions 'how do NSOs' culture facilitate the socialisation of participants in and through sport?' and 'how do NSOs understand the participant and give meaning to the importance of sport?' need further investigation.

Key Stakeholders and Benefits

- Sport Canada (better informed sport promotion policies; staff development)
- Ministry of Health (better integration of health policies with sport)
- Ministry of Education (better integration of educational policies with sport)
- National and Provincial Sport Organizations (clearer visions and better targeted efforts in enhancing participation; staff development)
- Schools and Universities (better integrate their social and sport policies with Sport Canada's agenda)
- Sport event organizers (better use of sport events to promote participation)
- Academic community (use of findings to inform research and teaching)

BOWKER, ANNE

Carleton University

S. Gadbois, L. Findlay, L. Rose-Krasnor

Standard Research Grant 2008

Extracurricular Activity Involvement in Canada: Relationships with Youth Development and Variations by Age, Gender and Context

Project Summary

The purpose of this research was to study extra-curricular activity (ECA) involvement in a broad range of Canadian youth, and to examine how this might vary by age, gender and geographical context (e.g. rural vs. urban settings). Of additional interest was how this participation contributes to positive youth development (PYD) and what intervening factors might exist. Results highlight the role of organized activity involvement, in particular sports involvement, as a longitudinal predictor of positive youth development. While youth engaged in a broad range of activities, sports participation was the most frequently cited activity, and appeared to yield the most activity engagement. Activity engagement was a particularly critical mediating factor, with relationship factors (with parents and peers) playing a significant role in the engagement process

Research Methods

In Phase 1, 1827 youth, aged 10-18 years, completed a survey about their ECA involvement, and indicated the activity with which they were most engaged. We examined age, gender and geographical context (rural vs. urban) variations.

In Phase 2, we followed 759 youth from Phase 1, aged 11-18, representing approximately 42% of the original sample, and they again completed a series of questionnaires about their most engaging activity, describing the role of significant others in those experiences, as well as their level of motivation for their ECAs. Youth completed measures of self-esteem and perceived competence (indices of PYD) and also completed a measure of child temperament. We looked at ECA involvement at Phase 1, as a predictor of PYD outcomes at Phase 2.

In Phase 3, 125 youth were interviewed, using a semi-structured interview protocol, asking them to describe their experiences with their most engaging activity, and to describe, in their own words, what made the activity involvement so significant. Youth also discussed specific positive and negative experiences in that activity. We identified key themes, using a qualitative analytic framework.

Research Results

Phase 1 results highlight the fact that the majority of youth from middle childhood through adolescence are involved in a variety of ECA. Although the level of involvement decreased with age, the average number of activities was still quite high in Grades 11/12. Girls and rural youth tended to be more involved than boys and urban youth. Girls tended to report a greater breadth of ECA involvement (participate in both sport and non-sport activities) however both boys and girls were most likely to choose a sport as their most meaningful activity. Sports activities were the most common type of activity and when asked to choose their favourite, or most engaging activity, 62% chose a sport. Sports were also rated as the most engaging activities. The rate of sports involvement decreased with age, whereas activities such as volunteering and more unstructured leisure activities increased with age. However, these other types of activities were significantly less common,

and structured non-sports activities, such as music, dance and theatre, were mentioned by only about half of the participants. In addition, if youth were participating in these non-sport activities, they were typically only engaged in one specific activity (e.g. piano), in contrast to sports activities where many youth were involved in multiple sports.

In Phase 2, we looked at how ECAs during Phase 1, predicted PYD outcomes in Phase 2. Youth who chose structured organized activities during Phase 1 (as opposed to unstructured activities) had significantly higher self-esteem at Phase 2 than those individual who did not. Organized sports involvement was the strongest predictor of general and domain specific self-esteem over this one-year period. What seemed to be particularly important, however, was how engaged the individual was in their favourite or most meaningful activity (e.g., This activity is an important part of who I am). This seemed to be more important, in some cases, than the specific type of activity involvement. In addition, social relationships played a key role, and regardless of age or geographical location, having parental support and involvement was an important predictor of activity engagement. Being involved in a stable favourite activity over time was also a significant predictor of activity engagement, leading to an increased feeling of belonging to the team or group, which also was related to activity engagement.

In Phase 3, we identified several themes that will help us to better understand youth engagement and the role of activity involvement and PYD. These activities were highly enjoyable, and typically involved social interaction, as well as a high degree of self-growth. Youth talked about developing clear goals and purpose in the activity, and of learning important life lessons such as perseverance and persistence. It seems necessary to have an activity that is challenging, but do-able, requiring concentration, skill development, and providing lots of immediate feedback. Structured sports activities include all of these attributes, perhaps offering a partial explanation for the popularity of sports activities and the high degree of engagement reported by youth in these activities.

Policy implications

Results highlight the importance of youth engagement in sports activities (simply participating may not be enough to yield positive outcomes) and the important role of social relationships in this engagement. Youth are particularly interested in the social interactive opportunities with peers, and the role of peer relationships in sport appears to be a crucial one. Results also highlight the important role that adults (parents, teachers and coaches) play in successful sports experiences.

For programs such as ParticipAction, whose aim is to ‘get Canadians moving’, these results stress the important role that social relationships play in this endeavour. If we are going to encourage physical activity in youth, we need to be aware of the critical role that peers and parents play. For many youth, it is the social opportunities that draw them to the activities, not the activity itself.

Given issues of accessibility, greater efforts should be made to facilitate sports participation in school settings, where parental income is less of a limiting factor. An example of a municipal level of involvement is illustrated at one of the Manitoba sites for data collection. The City of Brandon, in collaboration with the Brandon School Division, have signed a *joint use of facilities* agreement to share facilities more effectively for youth groups and organizations. For sport, this type of agreement is vital in that it provides venues for sport that are within all community neighbourhoods, decreasing accessibility costs (e.g., related to transportation) for youth of all income levels. At the provincial and federal levels, continued support of organizations that support families are vital. Though tax breaks for athletic participation are beneficial, the barriers of initial cost still remain for many youth.

Next steps

Given the high levels of sports participation, future research should include an examination of the different types of sports experiences (e.g., individual vs. team sport; recreational vs. competitive) and the importance of 'fit' between characteristics of the individual and his/her sports experience.

Clearly there are individual differences in engagement, and we would be interested in examining why some youth are generally more 'engaged' than others, regardless of the specific activity.

Future research should also examine the role of the coach and how the coach-youth relationship contributes to sports engagement and how this might interact with the parent-youth relationship.

Key stakeholders and benefits

Key stakeholders include community sports organizations at the municipal, as well as provincial level. Any amateur athletic organization could benefit from an understanding of the importance of youth engagement and the social relationships that could contribute to activity engagement over time.

BRAY, STEVEN R.

McMaster University

K. Martin Ginis, J. Cairney with Collaborators: D. Marinoff-Shupe, A. Pettit

Standard Research Grant 2010

“They Believe I Can Do It!... Maybe I Can!”: The Effects of Interpersonal Feedback on Relation-Inferred Self-efficacy, Self-efficacy and Intrinsic Motivation in Children’s Sport

Project Summary

Most children begin their formal involvement in sport around 8-10 years of age with the main reasons for participation being “having fun” and “learning and improving skills”. Yet, many children disengage from sport after only a short time with a major reason for dropping out being they were “not having fun” anymore. Many children lose motivation to participate because they doubt their abilities to improve or be successful. Because children who are learning sport skills often lack the experience and knowledge necessary to gauge how well they are doing, communication from coaches or instructors is an instrumental factor determining how competent and motivated they feel. Beliefs in our own abilities, or self-efficacy, guide what tasks we choose to do and the degree to which we persist at those tasks. Self-efficacy beliefs arise, in part, through our interactions with others, and are influenced by the perceptions we have about what others perceive our abilities to be.

All of us have had experiences during which we felt other people believed in our abilities to accomplish certain things. These people may have been parents, teachers, coaches, relationship partners or friends. Our perceptions of another person’s confidence in our abilities are called relation-inferred self-efficacy beliefs (RISE). RISE is thought to play an instrumental role in the development of self-efficacy as well as intrinsic motivation. Here, we were interested in children’s perceptions about what their coaches or instructors believe about their abilities and how these RISE perceptions might affect how children feel about themselves and their sport experiences.

We carried out three phases of research to investigate children’s RISE beliefs and the effects of interpersonal communication on RISE, self-efficacy, and intrinsic motivation. Phase 1 explored children’s perceptions about the types of interpersonal communication that influence RISE. Phase 2 investigated how providing children with RISE-relevant communication affects their self-efficacy, intrinsic motivation, and behaviour. Phase 3 looked at how sport instructors and coaches would pick up on ways to deliver RISE-based communication in their interactions with sport participants and the effects of RISE-based communication on children’s self-efficacy and intrinsic motivation in a naturalistic sport environment.

Research methods

Phase 1. Two qualitative interview studies involving 89 sport participants were carried out. The primary discussion involved children identifying specific examples of verbal and nonverbal behaviours that coaches, instructors and others (e.g., parents, peers) say or do that help them develop perceptions of RISE.

Phase 2a. Using examples of RISE communication behaviours from Phase 1, we carried out two controlled experiments. In both studies, children performed sport-relevant tasks (dart-throwing and endurance handgrip exercise). All were given generic positive encouragement and some also received RISE-based communication.

Phase 2b. Youth recreational sport participants (soccer, hockey, ringette) completed surveys about the frequency with which their coaches provided RISE-relevant communication during practices and games as well as measures of RISE and self-efficacy for playing their sport.

Phase 3. Using examples of RISE-communication behaviours from Phases 1 and 2, we developed and conducted an educational workshop designed to facilitate RISE-communication between coaches and participants. We video/audio taped coaches' behaviours during coaching sessions and surveyed participants' perceptions of RISE, self-efficacy and enjoyment before and after the workshop.

Research results

Phase 1. Results showed participants easily identified specific examples of verbal and nonverbal behaviours from coaches and instructors they interpreted and used to develop RISE.

- Examples include verbal interactions such as a coach saying: "I believe you can do this" and non-verbal interactions such as a coach providing opportunities to demonstrate skills or lead peers in practice.

Conclusion: Exposing children to specific verbal and non-verbal cues may affect their perceptions of RISE.

Phase 2a. Results showed that providing children with RISE-relevant communication in addition to positive encouragement when they are performing or learning new motor skill tasks leads to greater RISE compared to children who do not receive RISE-relevant feedback.

- For the skill-based task (dart-throwing), children who received RISE-communication reported greater RISE as well as self-efficacy for future performance. They also reported enjoying the dart task more than children who did not receive RISE feedback although there were no differences in performance.
- For the effort-based task (endurance handgrip squeezing), children who received RISE-communication reported greater RISE. Self-efficacy for future performance did not increase; however, performance on the endurance task increased dramatically compared to their earlier performances with no differences in enjoyment.

Conclusion: Exposing children to RISE-relevant cues leads to predictable increases in RISE as well as self-efficacy, intrinsic motivation, and task persistence.

Phase 2b. Children who reported receiving more frequent RISE-relevant communication from their coaches reported higher levels of RISE and self-efficacy.

Conclusion: Providing more frequent RISE-relevant communication to youth sport participants may be important for developing RISE and enhancing self-efficacy.

Phase 3. After participating in the class-based workshop, sport coaches reported greater awareness of RISE-relevant communication, stronger beliefs in the importance of providing RISE-relevant communication, and greater intentions to use RISE-relevant communication with youth participants. Video/audio data showed increases in the use of RISE-relevant communication during practice sessions that followed the workshop compared to those preceding the workshop. Children reported greater RISE and self-efficacy following their coaches' participation in the workshop.

Conclusion: Coaches are receptive to learning and incorporating RISE-relevant communication in their coaching sessions with sport participants. Using RISE-relevant communication while instructing sport skills enhances sport participants' RISE and self-efficacy.

OVERALL, THE RESULTS SUGGEST EXPOSURE TO SPECIFIC COMMUNICATION CUES FROM COACHES INCREASES RISE AND, IN TURN, MAY LEAD TO GREATER SELF-EFFICACY, TASK ENJOYMENT, AND TASK PERSISTENCE WHEN CHILDREN ARE ACQUIRING SPORT SKILLS IN COACHING AND INSTRUCTIONAL SPORT ENVIRONMENTS. COACHES AND SPORT CAMP LEADERS ARE RECEPTIVE TO EDUCATIONAL AND EXPERIENTIAL INITIATIVES AIMED TO ENHANCE THEIR USE OF RISE-RELEVANT COMMUNICATION WITH SPORT PARTICIPANTS.

CAUTION SHOULD BE EXERCISED WHEN INTERPRETING THE FINDINGS, AS THEY ARE LIMITED TO YOUTH RECREATIONAL SPORT PARTICIPANTS AND COACHES. IT IS NOT KNOWN HOW MUCH RISE-RELEVANT COMMUNICATION IS NECESSARY TO INCREASE RISE OR WHETHER EXCESSIVE EXPOSURE MAY HAVE DETRIMENTAL CONSEQUENCES. IT IS ALSO UNKNOWN WHETHER THE TIMING OF RISE-RELEVANT COMMUNICATION MAY BE AN IMPORTANT FACTOR AFFECTING ITS INTERPRETATION.

Policy implications

Engaging positive interpersonal experiences between coaches and athletes is an important aspect of building confidence and encouraging motivation for sport participants. Sport coach training programs should consider incorporating content (e.g., training modules, workshop activities) that educate coaches about the effects of providing RISE-relevant feedback or communication to athletes and interactive experiences (e.g., role-playing) that will give coaches confidence in their own abilities to incorporate RISE communication in their coach-athlete interactions.

Next steps

RISE perceptions are not unique to the sport environment and should be investigated in other interpersonal settings such as healthcare, rehabilitation, and education. RISE communication may be particularly influential when people are adapting to new situations or when they doubt their personal abilities to make changes or persist when they encounter challenges.

Key stakeholders and benefits

- Coaching Association of Canada
- Community Sport Programs (e.g., Minor League Soccer, Hockey, Baseball)
- Recreational Sport Camps
- Sport coach training organizations (e.g., Canadian Ski Coaches' Federation)
- Provincial/territorial teaching organizations (e.g., Ontario Teachers' Federation)

BRIDEL WILLIAM

Queen's University

Doctoral Stipend 2008

Finish...Whatever it Takes: Considering Pain and Pleasure in the Ironman Triathlon (A Socio-Cultural Analysis)

Project Summary

Stemming from my own involvement in Ironman triathlons, I became interested in ideas of *pain* and *pleasure* as social constructs. How might ideas about these things in the Ironman context relate to ideas about pain and pleasure circulating in the broader socio-cultural context? Furthermore, what might these relationships tell us about contemporary understandings of *bodies* and *identities*?

The ideas about pain and pleasure that I uncovered were significantly shaped by the importance placed on finishing. Finishing an event resulted in the acquisition of an *Ironman identity*, an identity that was suggested to provide *cultural capital* since Ironman triathletes are often represented as excellent examples of health, self-empowerment, and discipline — highly valued characteristics in a neoliberal political and social context. With the importance placed on finishing, there seems to be a mostly uncritical promotion/adoption of the “no pain, no gain” philosophy. That said, many interview participants stressed the importance of negotiating the difference between *positive* and *negative* kinds of pain. Paradoxically, despite critical awareness of the different kinds of sport-related pain, injury stories were still prevalent. Thus, the importance placed on becoming an Ironman seems to mostly trump the state of participants’ bodies and their overall health. It also shaped ideas about pleasure. Very few of my participants suggested that they found sensuous pleasure in their participation; rather, they found pleasure in the challenge of overcoming “limits,” finishing the event, and reaping the rewards that are perceived to come along with that.

Research Methods

I conducted interviews with 19 Ironman triathletes. On average, these interviews lasted two hours. I recorded the conversations and then transcribed them. I also incorporated my own Ironman experiences through the inclusion of training journals and race reports I kept when participating in the sport. Mediated representations of the Ironman — NBC broadcasts of the World Championships (1991 to 2010) and a sample of two triathlon-related magazines (1983 to 2010) — helped to contextualize the interview and autobiographical materials. I coded and analyzed the materials in Atlas.ti (qualitative research software).

Research Results

The results here are based on my own interpretations of the qualitative materials gathered. Only 19 people from a limited geographic context (Eastern Ontario) were interviewed. This group represents a very specific demographic — the professional middle class. This reflects the triathlon/endurance sport community but not the general Canadian population. That in mind, I present the following synopsis.

Sport sociology research has revealed the problematic ways that pain and injury are seen to be a “natural” part of sport and how coaches, sport administrators, and athletes themselves can contribute to this notion. The people with whom I spoke, however, contended that getting injured would preclude the possibility of finishing an event and so they sought to carefully negotiate the different kinds of pain in order to avoid injury. At the same time, there seems to be disconnection between critical awareness and lived experience because

injuries are still quite prevalent. I estimated that between the 19 participants and myself, we likely spent upwards of \$40,000 per year on sports medicine services, a number that is part of the often under-estimated costs of sports-related injuries in Canada annually (White, 2004). Some of my participants talked about the use of NSAIDs (e.g., Advil, ibuprofen) as a pain-management and/or pain-treatment strategy. This is concerning given some of the documented side effects of excessive use of NSAIDs, including alterations in kidney function, gastric bleeding, and the increased possibility of hyponatremia (Gorski, Cadore, & Santana Pinto, 2009). There were also cautionary notes about NSAIDs in the triathlon magazines analyzed, suggesting it is a concern for the community. This further emphasizes the paradoxical nature of holding up Ironman athletes as examples of good health.

Pleasure, in the materials gathered, was constructed in instrumental ways (i.e., notions of challenge, achievement, rewards, and recognition). Considering pleasure in such limited ways is prevalent in the fitness industry more generally (Smith-Maguire, 2008) so perhaps these results are not that surprising; they are, however, no less important. When focus is placed more on, for example, the achievement of finishing than how one is experiencing one's body while being physically active, there is a greater chance of becoming injured and having to deal with the related short and long-term health impacts that injury can have.

Policy Implications

There seems a need for more thoughtful discussion about sport/fitness-related pains and pleasures. In focusing more pointedly on bodily experiences in, versus outcomes of, sport participation we can initiate a conversation that does not seem to be occurring at the present time. With an increased focus on long-term athlete development (LTAD) in Canada (including ideas of being “active for life”) there needs to be, for example, more thought put into how different stakeholders in sport can talk about pain and injury (and connections to health since sport participation is being promoted as part of “healthy” lifestyle). At the moment, most reference to pain/injury assume that injury is a normal part of athletic involvement and that to deal with it, athletes should have a sport medicine strategy as part of their training plans. Official documents should include discussion of the possible costs of sport participation, rather than promoting sport as unquestionably healthy. Admittedly, incorporating these kinds of discussions will not be easy as evidenced by the many different (and sometimes competing) ways that pain was talked about in the context of my study. To ignore such discussions altogether, however, does a disservice to those who are participating in sport at any level and ignores the possibility that one can participate in sport without experiencing negative kinds of pain and injury. Finally, one of the stated objectives of LTAD is to promote “physical literacy”; it seems to me that this should include stage-appropriate discussions related to bodily experiences of pain (as above) and pleasure — with a view to move beyond pleasure being connected to achievement and rewards.

There are two places that such information could begin to be circulated: coaching certification programming (through the Coaching Association of Canada) and in Canadian sport organizations' long-term athlete development models. For example, could a discussion of sport-related pain become a part of all coach training materials developed by the CAC? Can we extend the currently limited ideas about sport-related pleasure?

Next Steps

The idea that “anyone can do an Ironman” emerged in my research. We must be cognizant of a shift in what is considered “normal” in terms of physical activity to more extreme ends of a continuum, as this will no doubt effect how people view their own bodies and the bodies of others around them. There remain bigger questions about the growth in Ironman and other “extreme” fitness practices as a form of leisure: what has

been going on over the past 30 years that contributes to the continued growth of these kinds of events? It seems that people are beginning to expect more and more extreme things of their bodies, something that is readily promoted through mainstream and sport-specific media, with a focus on outcome as opposed to process. This, combined with a lack of any meaningful discussion about sport-related pain and pleasure, might result in a scenario where the costs of participation begin to outweigh the benefits, something that sport organizers and policy-makers should wish to avoid.

Key Stakeholders and Benefits

At this point in time, I believe that there are three stakeholder groups who would benefit from this and future information: (1) Sport Canada's long-term athlete development group; (2) Coaching Association of Canada; and, (3) Triathlon Canada (and potentially the provincial federations as well).

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BRUNER, MARK

Queen's University

J. Côté

Post-Doctoral Stipend 2009

Understanding the Influence of Peer Groups in Sport on Adolescent Social Development

Project Summary

The primary objective of this research was to examine how the identities that youth form through membership on sport teams – their social identities – influence their social development. Specifically, the research examined the relationships between social identity and prosocial (e.g., helping an injured opponent) and antisocial behaviors (e.g., deliberately hurting an opponent) in youth sport. A secondary objective was to investigate whether perceptions of task cohesion (perceptions of the team working together toward goals) and social cohesion (perceptions of social bonding among the team members) influenced the relationships between social identity and prosocial and antisocial behavior toward teammates and opponents. Participants included 449 high school athletes from 37 sport teams (e.g., basketball, soccer, football) who completed a survey at the beginning, middle and end of the season. The findings revealed that stronger perceptions of social identity at the beginning of the season were associated with greater frequency in prosocial teammate behavior near the end of the season. Certain aspects of social identity were found to be associated positively and negatively with antisocial behavior. Stronger ingroup ties (perceptions of similarity and connectedness to the team) were associated with more frequent antisocial behavior toward teammates and opponents while stronger ingroup affect (feelings toward the team) were associated with less frequent antisocial behavior toward teammates and opponents. In regards to the research's second objective, perceptions of team cohesion were found to influence the relationships between social identity and prosocial and antisocial behaviours of the athletes. Among the relationships, task and social cohesion were found to significantly impact the social identity-antisocial behavior relationships. Collectively, the results provide evidence of the important role of social identity in predicting the moral behaviours of youth in sport, and the potential role of cohesion in explaining some of these relationships. The findings also offer support for previous suggestions that next to family, sport teams are one of the most influential groups to which an individual can belong.

Research Methods

After obtaining institutional and school board ethics approval, coaches from three school boards were invited to participate in the study. Contact with coaches involved presentations at school board athletic meetings and invitations to speak with high school coaches at their respective schools. Participants were recruited from the high school teams of interested coaches. Participants included 449 male and female youth (Mean age =16 years) from 37 high school sport teams (n= 14 basketball, n= 10 volleyball, n= 4 soccer, n=3 ice hockey, n= 2 American football, n=2 rugby, n=1 lacrosse, n=1 cross country) who completed questionnaires at the beginning, middle and end of the regular season. The questionnaire assessed the three dimensions of social identity (ingroup ties, cognitive centrality, ingroup affect), task and social cohesion and prosocial and antisocial behavior toward teammates and opponents. The data was analyzed using structural equation modeling.

Research Results

The study findings revealed that stronger perceptions of social identity at the beginning of the season were associated with greater frequency in prosocial teammate behavior (e.g., giving constructive feedback to a teammate) near the end of the season. Certain aspects of social identity were found to be associated positively and negatively with antisocial behavior. Stronger ingroup ties (perceptions of similarity and connectedness to the team) were associated with more frequent antisocial behavior toward teammates (e.g., criticizing a teammate) and opponents (e.g., trying to injure an opponent) while stronger ingroup affect (feelings toward the team) were associated with less frequent antisocial behavior toward teammates and opponents. In regards to the research's second objective, perceptions of team cohesion were found to influence the relationships between social identity and prosocial and antisocial behaviours of the athletes. Among the relationships, task and social cohesion were found to significantly impact the social identity-antisocial behavior relationships. Collectively, the study results provide evidence of the important role of social identity in predicting the moral behaviours of youth in sport, and the potential role of cohesion in explaining some of these relationships. The study findings also offer support for previous suggestions that next to family, sport teams are one of the most influential groups to which an individual can belong.

Despite several strengths of the study including its prospective design (i.e., over the season), this study is not without limitations. First, the questionnaire items assessing one of the dimensions of social identity, cognitive centrality (the importance of the group to the individual) were excluded because of a lack of validity in this sample. A second limitation of the study was the observational nature of the study design. In other words, the group dynamic variables examined, including social identity and cohesion, were not altered by the researchers to evaluate how changes in the group variables may impact prosocial and antisocial behavior by the athletes toward teammates and opponents. Nevertheless, this naturalistic approach to adolescent development through sport provided novel findings that have practical implications in terms of program design.

Policy Implications

This research on social identity and social development in youth sport is directly relevant to the Sport Participation Research Initiative (SPRI) and the federal government's Canadian Sport Policy 2012 document. Specifically, the research supports several goals and objectives of the CSP and SPRI. The primary objective of the research was to examine the influence of social identity on adolescent social development in sport. This objective supports Sport Canada's broad goal of sport for development (sport as a tool for social development and the promotion of positive values). The objective also supports the first broad objective of the SPRI to build empirical evidence to inform programs to enhance sport participation among Canadians. The findings from the research will help inform future strategies used by youth sport coaches to foster personal and social development and promote future sport participation. In addition, the findings will inform policy by providing evidence to highlight the benefits of sport on personal and social development and sport individual participation. This outcome supports the SPRI's second broad objective and the SPRI's fifth target area [identification and assessment of the benefits and outcomes of participation in sport].

Next Steps

Several future directions emanate from the study findings. One of the interesting findings was the complexity of the social identity-antisocial behavior relationship. Ingroup ties (perceptions of similarity and connectedness with team members) was associated with more frequent antisocial behavior toward teammates and opponents while ingroup affect (feelings associated with the team) had a negative relationship with antisocial behaviours toward teammates and opponents. Further qualitative research is needed to better understand the social identity – antisocial behavior relationships in sport. Additional

research is also needed to further refine the social identity measure for use in the sport context. While previous empirical support exists for the social identity measure, this was the first attempt to adapt the multidimensional social identity scale for a youth sport context. Finally, future research should look to progress the current findings through application of experimental designs that test the identified relationships. For example, experimental work could examine the effects of group-based interventions (e.g., team-building) specifically designed to foster group processes within a team (e.g., social identity, cohesion) that may promote prosocial behaviors and deter antisocial behaviors in sport.

Key Stakeholders and Benefits

- Provincial Ministry of Health and Long Term Care (formerly Ministry of Health Promotion and Sport)
- Sport Canada
- National and Provincial Sport Organizations
- Coaching Association of Canada

CALLARY, BETTINA

University of Ottawa

P. Trudel, P. Werthner

Doctoral Stipend 2009

Exploring the Process of Lifelong Learning: The Biographies of Five Canadian Women Coaches.

Project Summary

The purpose of this dissertation was to explore the biographies of five Canadian women coaches using Jarvis's theory of human learning to understand how the multitude of experiences throughout their lives have contributed to their learning and coaching development.

Coaches learn from a number of different situations and their past experiences influence what they choose to pay attention to and learn (Werthner & Trudel, 2009). Understanding the process of learning to coach can be explored holistically over the course of an individual's lifespan. This thesis was guided by Jarvis' (2006, 2007, 2009) theory of human learning, which takes a psychosocial perspective to understanding the way that individuals perceive their social situations, change their biographies, and become who they are over the course of their lives.

These findings add to the emerging body of literature on female coaches and coach learning by further understanding how the coaches' biographies determined what kinds of learning opportunities they each found meaningful; the importance of social connections in learning to coach; and the importance of reflection in understanding the interconnections of learning from life experiences. The study may motivate women coaches in understanding how lifelong learning influences their career paths and it informs coach education programs about the muddled reality of coaches' learning and development.

Research Methods

A constructivist paradigm was used to explore individual perceptions of social experiences (Light, 2008) and to understand how coaches learn based on their experiences. Purposive sampling, as recommended by Polkinghorne (2005), was used to select five women coaches with long careers in coaching and representing a variety of sports. Four semi-structured and in-depth interviews were conducted with each coach. Each interview lasted approximately two hours. Jarvis' (2006) theoretical framework guided the questions in the interviews. Each interview was transcribed and sent to the participants via email to be member checked. In keeping with Creswell's (2007) and Polkinghorne's (1995) outline of a narrative methodology, the interview data were chronologically organized into a narrative of the learning experiences that occurred throughout the lifespan of each participant. Each narrative was structured into approximately 20 pages single-spaced based on an in-depth examination of each transcript to ensure that all learning experiences were included in the narrative.

Research Results

The main findings of the dissertation study include:

- a) the women coaches learned from situations before they became coaches (in childhood and adolescence) including experiences with family, at school, and in sport that influenced their approaches to coaching;

- b) the women coaches were open to learning and sought out many meaningful opportunities to learn that helped them develop and become experienced as coaches;
- c) the women coaches developed values throughout life experiences influenced coaching actions;
- d) as the researcher, my own process of learning throughout the PhD degree was influenced by my lifetime of experiences to date;
- e) methodologically, the constructivist research process was a co-creation between the researcher and the participants.

Limitations:

A limitation of this research was the focus on the individual. I chose a predominantly psychological approach, while not forgetting the importance of the social context; therefore, a global and structural understanding of learning from a more sociological perspective was beyond the scope of this dissertation.

Due to the framework that I used in this dissertation, the questions that I asked the participants regarded their individual learning experiences, which I cannot say with certainty were caused by their gender or social positions within the power structure of institutions or culture.

While I acknowledge that it is possible to be a coach and not learn year after year, the interview questions drew out meaningful experiences for the women coaches that helped to explore their learning.

Policy Implications

This research can be used to enhance sport participation for women coaches in two ways: (a) to help women coaches reflect on learning experiences in coaching, and (b) to create recommendations for coaching education initiatives led by the roadmap of the Canada's Sport Policy 2.0 (CSP, 2012).

- a) This dissertation provides stories of real women coaches, in real settings, with real athletes, in real learning situations. It is hoped that the narratives and articles act as motivators to other women coaches who can find some similarities in the experiences and can reflect on and develop solutions to their own issues based on the understanding that they have a wealth of knowledge from their previous experiences throughout life and that they are not alone in what they are experiencing. Therefore, as suggested in the key principles of the CSP, we should include inspirational story-lines or narratives of successful women coaches to create resonance with others and build a long-term coach development concept within the policy.
- b) The practical implications of this research for coaching education initiatives, instigated by the CSP to provide direction to the sport community, while allowing stakeholders to contribute in their own ways include:
 - Providing women coaches with the opportunity to have a multitude of coaching experiences,
 - Providing women coaches with the opportunity to tell stories about those experiences (to other coaches, facilitators, peers, mentors). For instance, networking with other coaches helped the women coaches learn information and receive advice. Coaching conferences are important forums for women to gain access to a network of women coaches, advocate for themselves, and listen to others.
 - Providing women coaches with the opportunity to learn how to reflect on their experiences, values, actions, and decisions to develop future goals and directions (to not only reflect on coaching experiences, but also other relevant experiences that may influence their coaching approach).

e.g., In courses, help facilitators learn to properly assist coaches in reflecting on their lives, on what they do, and on how they do it.

e.g., Provide coaches with the opportunity to explore personal coaching approaches while working with athletes to discover these authentic approaches.

e.g., Provide program policies on completing end-of-season progress reports and performance reviews to help coaches think about their seasons and plan for upcoming seasons.

- Providing women coaches with the opportunity to work in collaborative ways with one another so that they develop strong and professional relationships with individuals from whom they can learn. In particular, a performance management strategy, in which Sport Organizations are flexible (i.e. work sharing) and provide financial support and job security to women coaches, such as through maternity leave and through salaried coaching positions would help increase the low number of women coaches and retain them in the workforce. Such progress could be measured, monitored and easily managed to develop a more equitable gender-ratio in coaching.

Next Steps

The Canadian Sport Policy has as its goal “to maximize the benefits of sport and to mitigate its potential negative impacts” since sport can benefit persons and communities “under the right conditions”. Therefore, future research can focus on how women coaches can engage in learning opportunities that are more inclusive and accessible, and help promote sustainable careers. Furthermore, research could explore how sport participation is experienced by the athletes and participants led by coaches engaged in lifelong learning. For instance, future research endeavors could focus on how coaches implement what they learned from their lifelong experiences to attempt to facilitate positive sport experiences for their athletes. More specifically, if values are developed throughout life and are inherent in coaching actions, how do these values translate to the coaches’ athletes, especially youth, the aging population of sport participants, those of differing gender, cultures, and/or ethnic backgrounds? Future research could explore how relationships created between coach and athlete enhance or diminish a positive influence in sport participation and the development of life skills. In this way, the process of participation in sport can continue to be monitored and evaluated.

Key Stakeholders and Benefits

Sport Canada:

Sport Canada may benefit from the findings of this study as there are meaningful stories of women coaches who note the many lifelong experiences that led them to their coaching careers. It is important for Sport Canada, and the Canadian Sport Policy-makers, to be aware that such narratives act as motivators to other women coaches who can find some similarities in the experiences and can reflect on and develop solutions to their own issues based on the understanding that they are not alone in what they are experiencing.

Coaches Association of Canada:

- Coaches Association of Canada may benefit from the findings of this study as there are concrete implications to coach education initiatives that derive from the research:
- Provide coaches with the opportunity to have a multitude of coaching experience
- Provide coaches with the opportunity to tell stories about those experiences (to other coaches, facilitators, peers, mentors)

- Provide coaches with the opportunity to have their stories told back to them as food for reflection
- Provide coaches with the opportunity to learn how to reflect on their experiences, values, actions, and decisions to develop future goals and directions (to not only reflect on coaching experiences, but also other relevant experiences that may influence their coaching approach)
- Provide coaches with the opportunity to work in collaborative ways with one another so that they develop strong and professional relationships with individuals from whom they can learn

CHANDLER, KRISTA

University of Windsor

C. Hall

RT 2006

Imagery Use in Children's Leisure Time Physical Activities

Project Summary

Given the rate of children's physical inactivity, it is important to identify strategies that assist individuals in self-regulating their physical activity behaviors. Imagery is one such strategy. Children's use of imagery has been investigated in sport, but not all children are involved in organized sport. Children may accumulate their daily physical activity and use imagery during active play. As such, the overall purpose of the current research project was to gain an understanding of children's use of imagery in their leisure time physical activity (active play). Children (7-14 years) indicated using imagery during their active play. Several age and gender differences did emerge, however. In contrast to results observed in sport where young athletes employ imagery for cognitive (e.g., rehearsing skills/strategies) and motivational (e.g., being confident, in control) purposes, children indicated using imagery pertaining to the fun they experience, the competence they have for doing the activity, and the social relationships they engage in while in active play settings. Results from our applied study found that children receiving an imagery intervention maintained their levels of active play compared to those children in the control group who saw a significant decline in their levels of active play.

Research methods

The project used multiple research methods including both qualitative and quantitative approaches. Study 1 included 23 focus groups with a total of 104 children (7-14 years). The aim of the interview guide questions was to gather information on how children's imagery use was linked to the three basic needs (autonomy, competency, relatedness) during their active play. Study 2 included the development of a paper pencil questionnaire measuring children's use of active play. Two large independent samples ($N = 302$; $N = 252$) of children (7-14 years) were recruited for the PCA and CFA. Finally, Study 3 included a 4-week imagery intervention aimed at increasing active play. Children ($M_{age} = 10$ years) were randomized into a control ($n = 26$) and imagery ($n = 33$) group. All children received an automated script 3x/week for the duration of the study. In addition to the questionnaires used to measure imagery use, motivation, intention, and physical activity, pedometers were used to objectively measure physical activity. Ethics approval was granted from the University of Windsor and parental consent as well as participant assent was obtained. Recruitment for all three studies took place in the Southwestern Ontario (schools, clubs, camps).

Research results

Because children's use of active play imagery had yet to be explored, the use of a qualitative approach in Study 1 was deemed advantageous. The findings indicated that indeed, children use imagery during their active play for the satisfaction of three basic needs (autonomy, relatedness, competence). Given the age span used in the study (7-14 years), it is possible that the developmental stage of the participants may have influenced their ability to articulate their images. The aim of Study 2 was the development of the Children's Active Play Imagery Questionnaire. By employing a three-phased approach, which involved expert assessment of developed items, preliminary evaluation of the inventory and CFA, the final questionnaire consisted of 11-items (four capability, four social and three fun), rated on a 5-point Likert scale. Study 3 analysis revealed that pedometer step count remained stable for the imagery group but decreased from pre to post intervention for

the control group. These findings provide valuable insight regarding imagery as a strategy to increase, or at the very least, maintain levels of active play. Moreover the results bridge the gap between theory and application of imagery use during active play.

Policy implications

Findings highlight the critical importance of children's sedentary behavior and the need for strategies, such as imagery, aimed at improving their daily physical activity. The current research project is highly relevant to Sport Canada's Research Initiative and has strong links to the core principles set by the Canadian Sport Policy 2012. The Sport Policy notes the positive impact that the core principles will have on the practice of all sport forms, including unorganized sport and in schools and parks, which are central to our research program. Physical literacy is a precondition for the lifelong participation in, and enjoyment of physical activity, including sport. It begins in early childhood and improves throughout one's life, and is learned through sport, physical education and active play. Imagery is a proven mental strategy for improving physical literacy. The potential outcomes of our research program can be linked to Canadian Sport Policy 2012 core principle of inclusion. Sport programs, in their broadest sense, include all forms of sport (ranging from introduction and recreational to high performance). Leisure time physical activity provides an opportunity for children to engage in unorganized sport. For example, children's active play often consists of road hockey, shooting baskets, kicking a soccer ball, or playing catch. An indirect outcome of our strategic imagery intervention is the introduction and development of skills fundamental to sport; this is especially true given the young age of our participants. When we increase the frequency and duration of children's active play, the development and execution of these fundamental skills are enhanced.

Next steps

By identifying the correlates of imagery with active play, future interventions aimed at improving activity levels among children and youth can be established, particularly among those who are highly sedentary. This is especially important given that Canadian children are unable to meet the guidelines which recommend 60 minutes a day of moderate to vigorous physical activity, and that at least half of their physical activity accumulation should be in active play (unstructured leisure-time physical activity; Active Healthy Kids Canada, 2010). Given the noted imagery differences among gender during active play, future interventions aimed at increasing motivation for physical activity should tailor imagery types to their desired outcomes and ensure moderating factors are taken into account. For example, when working with a population of young girls, more emphasis should be placed on developing capability images given this type was utilized more frequently than their male peers. By further examining and validating the Children's Active Play Imagery Questionnaire, more effective intervention programs can be developed which may increase current levels of physical inactivity among children. Lastly, these imagery interventions might be best implemented in school physical education settings as they could reach a large number of children and could easily be incorporated in the curriculum.

Key stakeholders and benefits

- Canadian Sport for Life (LTAD-FUNdamental)
- Active Healthy Kids Canada
- Provincial Ministry of Tourism, Culture and Sport
- Ontario After-School Program
- Canadian Fitness Lifestyle Research Institute
- Ontario Ministry of Education (School Boards, PE teachers)

CLARK, ANDREW

McMaster University (currently Western University)

Doctoral Stipend 2010

Understanding Barriers to Sport in Hamilton, ON

Project Summary

This study uses a random group of adults in Hamilton, ON to determine what barriers to sport are preventing adults from being active through sport. The research using data from a questionnaire that was part of a larger study called the Hamilton Active Living Study or HALStudy. This questionnaire data was used to address three key objectives: (1) To understand the differences in the socio-demographics between participants in sport and non-participants in sport; (2) To understand what barriers to sport exist in the city of Hamilton; and (3) To understand how barriers to organized and unorganized sport influence different sub-groups of people. These objectives were addressed using various statistical analyses to determine that vulnerable populations are most at risk of facing barriers to sport, and personal preferences, time constraints, and accessibility are the key barriers to sport for this sample. Future research is needed to further examine the accessibility barriers to determine if they are identified because of true observed accessibility or based on the perception of accessibility.

Research methods

The data used for this study comes from the Hamilton Active Living Study (HALStudy). The purpose of the HALStudy was to learn about people's participation in physical activity and the barriers preventing people from participating in additional physical activity. The sample was collected from May to September 2010 in Hamilton, Ontario, Canada. The final dataset had 201 subjects living in 40 neighborhoods. There were three components to the HALStudy: an upfront interview, a seven-day time-use diary with passive global positioning system (GPS) tracking, and a personal questionnaire. The primary data used in this study comes from the personal questionnaire, which is a detailed survey that included questions about socio-demographics and sport. Data analysis methods used in this study include difference-in-means test (Objective 1), ANOVA (Objective 1), exploratory factor analysis (Objective 2), and binary probit models (Objective 3).

Research results

Objective 1: To understand the differences in the socio-demographics between participants in sport and non-participants in sport. Results show that participants in sport are more likely to be in higher income households (\$60,000 to \$79,999). Non-participants are more likely to be in lower income households (\$20,000 to \$39,999). Participants are more likely to be a student, than not a student. Those with a degree from a post-secondary institution are more likely to be participants. Those without a driver's license are more likely to be non-participants. Finally, households with more children are more likely to be a non-participant.

Objective 2: To understand what barriers to sport exist in the city of Hamilton. Results show that there are two key barriers to sport in Hamilton common among non-participants: accessibility to facilities and sport preferences. Accessibility to facilities shows that being able to easily travel to sport facilities is essential to ensure individuals can participate in sport regularly. Furthermore, this is a measure of perceived accessibility, so in areas in the city where perception and observed accessibility do not match, recreation providers need to promote their facilities and programs designed for adults and seniors. Sport preferences show that some people simply do not like sports, and would prefer to do nothing, or other activities. With these individuals,

recreation providers should highlight the diversity of what they have to offer, as there would be a better chance to find programs that are of interest.

Objective 3: To understand how barriers to organized and unorganized sport influence different sub-groups.

Time barriers are indicated as a problem for employed individuals and parents, while those who are not single and are young do not indicate them being a problem. Senior Citizens and low income residents indicate that health concerns are a serious barrier to all sport participation, but people who are young, single, or employed rarely indicate that they have any health concerns. Accessibility to organized sport facilities and programs prevents transit users from participating in sports, while accessibility is not a barrier for unorganized sports.

Limitations. This study provides an observation of the barriers to sport in Hamilton, ON using a representative sample. Although the results show some interesting findings, the sample size is small due to cost (financial and time), limiting the complexity of analysis that can be done. Despite this limitation, the sample was collected using a stratified-random approach, whereby subjects were recruited through random phone calls from 40 neighbourhoods that were stratified by income and walkability. Additionally, the resulting sample has been found to be representative of the city of Hamilton.

Policy implications

The findings of this study identify the barriers to sport and the characteristics of both participants and non-participants. This study has policy implications that can benefit both local organizations and government. Local recreational sport providers can help provide adults with opportunities to be active through sport, by providing and promoting sports that adults of all skill levels can enjoy. In particular, providing low cost opportunities for the vulnerable populations, such as those with low income, mobility constraints, and lower education levels, can help reduce these barriers significantly. Accessibility barriers can be minimized by providing free transportation to facilities, such as the YMCA, to allow those who may not have access to a car to travel to the facilities and programs much easier. Finally, developing family-oriented sports that allow whole families to participate together, may allow larger families to be more active in sports minimizing the time barriers they face.

Next steps

One of the major questions raised by this research is how accessibility to sport facilities relates to the observed availability in an individual's neighbourhood. This will allow researchers to understand if the barrier to accessibility is due to perception or due to an actual void of opportunities. If there really is a lack of accessibility, policy makers can determine how to complement existing infrastructure to increase accessibility. In contrast, if the facilities and programs do exist, the recreational programmers need to promote the programs to get adults engaged in sport and minimize the barriers that are perceived.

Key stakeholders and benefits

- City of Hamilton Recreation Division
- City of Hamilton City Hall
- YMCA of Hamilton, Burlington, Brantford
- Boys and Girls Club of Hamilton

COUSENS, LAURA

Brock University

Standard Research Grant 2006

Examining Interdependence in Canada's Sport System: Community Basketball

Project Summary

The purpose of this research was to explore and assess the existence of partnerships or network collaborations within the delivery network of basketball providers in one geographic region of Canada: Niagara. Investigators used network analysis to investigate the degree of integration (incidents of network collaboration) and interdependence (partnership effectiveness) between providers of sport (e.g., basketball clubs, Boys and Girls Clubs, Parks and Recreation Departments) in one geographic region. The specific objectives of the research were: to identify the providers of the sport of basketball in one geographic region of Canada; to identify the location (central, periphery) of each actor in the network of providers, as well as the level of connectedness (density) of the network; to identify the conditions that have facilitated or hindered collaboration and integration in the networks; and to explore the environmental context (normative, regulative, cognitive) of the networks.

The study revealed a fragmented network wherein the number of actual linkages among the organizations was low (one third of all possible linkages,) with organizations working independently rather than fully exploiting opportunities for collaboration. The referees association was situated at the centre of the network given its control over a key resource, referees, valued by each of the basketball clubs.

The dedicated basketball clubs were more tightly coupled to one another than to the nonprofit organizations (e.g. Boys & Girls club; YMCA) or to the educational institutions (e.g., post secondary).

Reasons for lack of integration among local providers of basketball included:

- need for control over decision-making in the club;
- challenge of securing buy-in from other clubs to partner;
- challenges associated with working with volunteer boards of directors;
- rivalry between local clubs for athletes, facilities, and financial resources;
- lack of volunteer time and expertise to establish and manage partnerships;
- lack of realization of the economies of scale (e.g., lower administrative overhead for marketing, registration, and facility booking) available through collaboration;
- fear of uncertainty and of making long-term commitments to other organizations; and
- need to hire paid staff to manage relationships with key partners/stakeholders.
- mechanisms that facilitated collaboration uncovered:
 - friendships that facilitate the use of 'social capital' to acquire resources;
 - assigning board members to manage relationships with key partners/stakeholders;

- Hiring paid staff to manage relationships with sponsors, facility providers, and with the referees association;
- Establishing a framework for collaboration based upon shared goals and values; and
- Leveraging informal contacts in the basketball community to initiate partnerships.

Research Methods

Quantitative data was collected using a five-page survey adapted from Provan, Harvey, and Guernsey de Zpaien's (1995). Questions surrounding the reasons for linkages between basketball providers were drawn from the literature on community sport organizations, and included links to share information, resources, marketing, and fundraising. Respondents were asked to indicate the organizations to which they were linked from a list of basketball providers. Additional questions related to organizational goals and structure, barriers to collaboration, and key players in the community who facilitated or hindered collaboration. 11 out of 12 organizations completed the questionnaire. Data were analyzed using the UCINET 6 network analysis software (Borgatti, Everett & Freeman, 2002).

Qualitative data were collected via 11 in-depth guided interviews with basketball providers at the local, provincial, and national levels. Individuals contacted for interviews included two university basketball coaches, senior administrators or members of the board of directors of local clubs, the leaders of recreation basketball programs, as well as representatives from Canada Basketball and Ontario Basketball. Questions were posed to gain a deeper understanding of the inter-organizational relationships that existed – or did not exist - among the clubs or with other key resource providers. Each interview was recorded, transcribed verbatim, and member-checked by the interviewee for content accuracy. Each member of the research team read the data to identify codes, patterns and relationships.

Research Results

Power and dependence: Local clubs' efforts to maintain power over critical areas of their operations hindered opportunities for collaboration, not only with other local clubs, but with governance bodies in the broader environment encompassing the sport of basketball. The clubs were highly dependent upon others in their environment for virtually all of the critical resources needed to operate.

Industry rivalry: Dedicated basketball clubs clearly identify themselves as rivals in this local market, competing for athletes, volunteers, facilities, and financial resources from local governments or sponsors. Low barriers to entry (e.g., easy for start-up clubs to enter the market), and high levels of uncertainty in relation to facility access and funding from sponsors intensified industry rivalry among local basketball clubs.

Reliance on normative processes. In the case of dedicated basketball providers, it appears that some level of cooperation has arisen through normative processes that are embedded in the social relationships in this community. It appears that social norms were used as the basis of behaviors by the majority of the providers. Accordingly, the threat of punishment or sanctions (e.g., limit access to referees or facilities) worked in support of cooperative behavior.

Managing interdependence. Linkages with other organizations involve commitments, obligations, and a greater degree of inter-organizational interdependence that necessitates internal coordination. However, the managerial structures needed to effectively integrate inter-organizational activities were largely absent in dedicated basketball clubs. Some clubs were moving towards adopting a more structured approach to

managing relationships by creating dedicated positions to facilitate interactions. Informal (e.g., friendships) means were also used to manage inter-organizational interdependence.

The results of this research are not generalizable to a broader array of individual and/or seasonal sports; however they do highlight resource constraints that are typical of many community sport clubs.

Policy Implications

Establish, at the provincial level, a regional framework for local, same-sport clubs; one that limits club rivalry among existing clubs and creates barriers to entry for new clubs that lack specified governance frameworks and organizational structures.

Mandate strategic planning by local sport clubs. Emphasize strategies to reduce uncertainty through long-term contracts or relationships with facility providers (municipal governments, schools) and/or corporate sponsors. The capacity of local sport clubs to increase participation is severely limited by uncertain access to facilities.

Mandate a prescribed governance structure for local sport clubs.

Provide incentives for collaborative structures, such as sport councils, that will alter the power and dependence relationships between sport clubs and their key suppliers.

Create, at the municipal level, liaison mechanisms (staff, processes) that enable local sport clubs that use municipal facilities to manage their power/dependence, and to enhance communication.

Provide a framework for longer-term access (3 to 5 years) to facilities to enable sport clubs to enhance participation through planned growth strategies.

Develop a strategic plan for regional sport facilities that considers the facilities owned by local governments, private companies, and nonprofit organizations. Consider non-traditional venues such as churches, outside spaces, and refurbished industrial buildings.

Next Steps

What are the normative processes used by local sport clubs to manage their interdependence with resource providers and competitors?

How do coalitions of sport organizations, such as Sport Councils, serve as mechanisms to manage the relationships among community sport clubs and their resource providers?

How do networks encompassing nonprofit providers of sport compare to networks encompassing private and public-sector providers of sport programs?

Which organizational structures facilitate or hinder collaboration and integration among community sport clubs and their resource providers?

Key Stakeholders and Benefits

- Local governments (in particular Parks and Recreation Departments)
- Provincial Sport Organizations
- National Sport Organizations
- Sport Councils (Commissions)

DARNELL, SIMON

Durham University

Post-Doctoral 2008

The Politics of International Sport: An investigation of the Sport for Development and Peace Movement

Project Summary

Sport and physical activity is now mobilized in programs and initiatives designed to meet international development goals, leading to a sector known as 'Sport for Development and Peace' (SDP). A number of different organizations make up this sector, including non-governmental organizations, charities, corporations, professional sports clubs, and governments. As a result, sport is formally recognized, by organizations including the United Nations, to contribute to advancing social development, particularly in Low and Middle Income Countries (LMICs).

Drawing on interviews with program officials and policy makers from across the SDP sector, this study sought to:

- Investigate the particular mandates of, and approaches to, international development taken up within SDP
- Compare and contrast these mandates against the history of international development and the different orientations to development that have taken up post World War II.

Two main conclusions can be drawn: 1/ while the SDP sector clearly represents a new incarnation of the mobilization of sport for social change, the political dimensions and implications of conceptualizing and implementing development initiatives through SDP are not new. International development is inherently political and those working in the SDP field generally recognize it as such. In fact, the political challenges of SDP map closely onto the politics of development identified within critical development scholarship over the past several decades. In particular, balancing modernization and stewardship versus self-determination remains a challenge in SDP. As a result, and 2/ the political challenges of development preclude the mere application of sport as a solution to or panacea of international development struggles. Sport is not an answer to development, though it may be part of the process of re-imagining and in some cases resisting traditional forms of international development.

Research Methods

Semi-structured interviews (n=9) were conducted with program officials and managers from SDP organizations. These included representatives from two organizations concerned with SDP advocacy and facilitation, one celebrity athlete foundation, one charitable arm of a professional sports club focused on international development and SDP, one youth sport and coaching development organization, and four SDP NGOs working in the Global South and focused on youth education and health.

Interview questions focused on policy makers' understandings of the position and role of sport-for-development and its political dimensions and challenges. While the insights collected through the interviews do not fully capture the ongoing changes and increasing diversity of SDP, they do offer some critical insights and reflections as to the political orientation(s) of SDP.

All interviews took place between January and July 2010.

Research Results

Three themes emerged from the interviews.

First, it is reasonable to argue that traditional notions of development as a process of modernization cling to, and influence, current understandings and conceptualizations of sport-for-development within SDP, particularly because it positions SDP as a way to facilitate improvement amongst marginalized persons and populations. Despite the sustained critical perspectives that SDP stakeholders bring to bear on their work and on the sector in general, the tendency to reduce development to a process of improvement, and of securing modernity for those currently denied its benefits, remains an attractive political platform from which to mobilize sport-for-development.

Second, it therefore remains a challenge within SDP to reconcile critical and theoretical understandings of development and ways to do development differently, against the practical challenges of how to implement new approaches to development through sport. Specifically, attempts to do development differently have led SDP practitioners and champions, particularly from NGOs, to focus purposively on local ownership of development programs as a means of challenging traditional development hierarchies. This, though, produces a set of new challenges in SDP over governance, funding and monitoring and evaluation.

Third, there is evidence that some SDP practitioners are indeed working directly to protect the development novelty that sport affords. That is, for some SDP policy makers, sport is a response to the failure of dominant development orthodoxy, even though organizing it as such is very difficult to do within the political economy of development and within the pressures to effect and measure if not prove sustainable change.

Policy Implications

The first and most significant policy implication is that the political dimensions of mobilizing sport to meet development goals cannot be ignored or dismissed even in the cases where sport is a genuinely popular activity with cross cultural appeal. International development is, and will remain, fraught political territory and policy makers would do well to embrace the political dimensions of their decisions in the SDP sector and in regard to sport-for-development more generally.

Second, there is strong evidence from the field that a wide range of stakeholders in the SDP sector are interested in, and committed to, critical self-reflexion as well as innovative partnerships within the sector. That is, traditional understandings of development as the deliverance of aid to a passive third world are understood as anachronistic within the SDP sector. Policy makers have a significant opportunity then, to re-imagine their policy models and organizations in mobilizing sport to meet development goals.

Next Steps

The main next step for my research is to examine and investigate whether there are other or alternative political orientations to development (more radical, more active, more resistant) than the traditional approach which often seems to predominate within SDP. This will allow for a comparative analysis between 'sport-for-development' (as currently practiced within SDP), versus sport-for-political-activism or resistance.

Key Stakeholders and Benefits

Any organizations or groups mobilizing and/or organizing sport and physical education for purposes of development (social, community, economic, relational, etc) may benefit from the insights of this study. This may be of particular interest to those organizations that are doing this kind of work in the Global South.

- Sport for development NGOs (e.g. Right to Play, SCORE)
- Organizing bodies (e.g. United Nations Office on Sport for Development and Peace, Streetfootballworld)
- Celebrity athlete charitable foundations (Steve Nash Foundation, Roger Federer Foundation)
- Government Ministries (Sport Canada, Canadian Heritage)
- Corporate charities (Nike, adidas)

DEMERS, GUYLAINE

Laval University

Standard Research Grant 2006

Description of the First Years of Experiences of Novice Female Coaches

Project Summary

The objective of this study is to better understand the experiences of novice female coaches during their first two years of coaching. Conclusions of previous studies have shown an under-representation as well as a decreasing number of female coaches in the last 30 years. Not only are there less female coaches, those who chose this profession stay in it for approximately four years, in comparison to their male counterparts who remain in coaching for 11 years. Building on these conclusions, we have set two specific objectives: 1) describe the profile of women entering the coaching profession and 2) identify the different successes and difficulties they experience in their first two years of coaching.

Although this research is an exploratory one, identifying successes and especially problems has provided excellent leads in terms of the training of female beginner coaches. It appears, in fact, that their training should include a component on handling discipline. This is not surprising in and of itself, because young coaches often work with younger groups of athletes. The need for teaching strategies and access to a varied exercise bank appears critical to training women beginner coaches.

This study confirms that mentorship support should be available to beginners as it is for experienced coaches. The differences appear to relate to the objectives of the mentoring. Experienced coaches need more support to overcome obstacles having to do with the fact that they are women, while beginners seem to need more technical support, such as educational strategies or examples of exercises to apply.

In closing, we can state that the coaches appreciated opportunities to record their successes and problems. As one said, "It feels funny describing negative events; it gets them out of your system." They are increasingly sensitive to their experiences, and their descriptions are becoming more refined over time. This approach seems to hold potential for working with female beginner coaches.

Research methods

We have chosen a multiple case study in order to better understand the experiences of novice female coaches.

1) Recruiting the female coaches

We recruited the novice female coaches through the Quebec school sport system. We called the athletic director of every high school to have the contact information of any new female coaches in that particular school. We also contacted few gym clubs where we knew they had new females in a coaching positions. We were able to recruit 12 novice female coaches involved in gymnastics (6), basketball (1), soccer (2), taekwondo (1), curling (1), and cheerleading (1). Nine were coaching in the community stream and three in the competition stream.

2) Data collection on problems and successes

We used the critical incident technique in order to collect data on the problems and successes those novice coaches were experiencing. Each of them reported a minimum of two incidents per week (one linked to a problem, one linked to a success) for a period of time varying from 16 to 20 weeks. We collected between 32 and 40 incidents for each coach for a total of 462 incidents.

Research results

Although this research is an exploratory one, identifying successes and especially problems has provided excellent leads in terms of the training of female beginner coaches. It appears, in fact, that their training should include a component on handling discipline. This is not surprising in and of itself, because young coaches often work with younger groups of athletes. The need for teaching strategies and access to a varied exercise bank appears critical to training women beginner coaches.

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In closing, we can state that the coaches appreciated, and continue to appreciate, opportunities to record their successes and problems. As one said, "It feels funny describing negative events; it gets them out of your system." They are increasingly sensitive to their experiences, and their descriptions became more refined over time. This approach seems to hold potential for working with female beginner coaches.

Policy implications

This research is relevant to the new Policy on sport for women and girls. Specifically, it is linked to the following action plan activities (based on the Policy Intervention areas outlined in the policy):

- Program Improvement
Support and encourage organizations funded through Sport Canada via on-going liaison processes to actively engage women and girls as governance leaders, coaches, technical leaders, officials and athletes participants (as appropriate), including through the provision of facilitation expertise and use of readiness and gap analysis tools.
- Strategic Leadership
Advocate with Provincial/Territorial Governments to support and/or develop sport programs and initiatives that actively engage women and girls in sport as athlete participants, coaches, technical leaders and officials, and as governance leaders (as appropriate).

Next steps

Research questions

- What would be the impact of women only training session on recruitment of women coaches?
- What is the impact of mentorship on women coaches' retention?
- What do the different sport organizations do to support their new female coaches?
- Why do women stay in coaching for a shorter period of time compare to their male counterparts?
- Qualitative study to describe women's experiences in a action research project where we help beginner coaches to learn their new profession.

Practical applications

- Design women-only training workshops including the new findings (e.g. how to deal with discipline issues, how to deal with parents).
- Develop a mentorship program linked with the workshops; make that process automatic.
- Develop a network to let the local sport organizations know about who are the trained women available to coach in their sport.

- Work with the NSO so they would develop drills and exercises «handbook» for their sport (develop a template to help them).
- Write a chapter to add to the material that is used to train NCCP Learning Facilitators about women learners in a coaching workshop.

Key stakeholders and benefits

- Coaching Association of Canada (NCCP and Women in coaching program)
- National and Provincial Sport Organizations
- Canadian Interuniversity Sport
- Canadian Collegiate Athletic Association
- Sport Canada (Women and sport)
- Canada Games council
- Provincial and territorial governing bodies (ministry or secretary of sport)

DETELLIER, ÉLISE

University of Montreal

Standard Research Grant 2006

They Always Remain Girls: The Re/Production of Gender Relations in Women's Sports in Quebec, 1919-1961

Project Summary

This doctoral thesis examines how multiple factors influenced women's participation in sports in Quebec between 1919 and 1961. It shows that gender, class, age, religious and ethno-linguistic affiliation, as well as whether a facility was co-ed or not, must be taken into consideration for a better understanding of women's participation in sports, an area that was, and still is, more readily associated with men.

The thesis is based on the study of the discourse of doctors, physical education teachers –especially Cécile Grenier – Catholic clergy members, women athletes – particularly Myrtle Cook –and, to a lesser extent, of civil servants, to identify the arguments these social actors put forward to restrict or encourage women's participation in sports. This study is linked to that of women's sports played in two sports centres in Montreal, namely the Palestre nationale, a co-ed centre frequented by French-Canadians, and the Young Women's Christian Association (YWCA), a centre for women where members are predominantly English-speaking Protestants.

Research Methods

Numerous documents were consulted during this research, specifically French- and English-language medical journals, Catholic Church tracts, a number of Myrtle Cook's newspaper sports columns, and the archival records of Cecile Grenier, Conrad Poirier (photographer), and the Palestre nationale and YWCA in Montreal. In these archives, meeting minutes, annual reports, correspondence, bulletins, conference papers, articles and photographs were reviewed. By relying on a greater number of sources, the thesis highlights the complexity of the history of women's sports in Quebec.

Research Results

This thesis shows that between 1919 and 1961, many voices contributed to the discourse on women's sports in Quebec, and that practices were varied. In the province, as elsewhere in Canada, women's participation in sports therefore gave rise to social debates. The diverse prescriptive views on women's sports expressed by social actors as well as the various women's sports practices are understood in light of the definitions given according to gender, class, age, religious and ethno-linguistic affiliation, and whether a sports facility was co-ed or not, while considering the socio-historical context in which the discourses took place and the sports were practiced.

This thesis sheds some light on the complexity of studying the history of women's sports in Quebec. The analysis is focussed on the discourse of a number of social actors and on the women's sports offered in two facilities. The study of other discourses and practices would help provide a better understanding of the elements of discourse and the practices that either encourage or prevent women from participating in sports.

Policy Implications

This thesis helps provide a better understanding of the various social, economic and political interests pursued by doctors, physical education teachers, Catholic Church clergy, women athletes and sports associations in deciding on or organizing women's sports at a time (1919–1961) when the federal government, the Quebec provincial government, and the municipalities rarely intervened in this area.

Next Steps

This thesis raises many questions to be investigated about the history of women's sports in Quebec, which could help understand how gender, class and ethnicity influenced the organization of sports in the province and elsewhere in Canada, for instance by initiating the comparative study of physical education programs in English- and French-language schools and by analyzing the practices of the Young Women's Hebrew Association (YWHA) in Montreal. Although this city is a very important case study for women's sports in Quebec, as shown in this thesis, for example, researchers should also place a greater focus on the province's other cities and towns to better grasp how the gendered dimension of sports organizations is expressed and structured in a particular local context. It would also be useful to see how gender influenced the implementation of the first provincial and federal state activities in sports, an issue that requires further research.

Key Stakeholders and Benefits

Canadian Association for the Advancement of Women and Sport and Physical Activity

This thesis provides an in-depth analysis of the gender dimension of the history of sports in Quebec, therefore highlighting the complexity of the study of women's participation in the field, both in the province and elsewhere in Canada. The study of class, age and ethno-linguistic and religious affiliation, as well as the impact of whether the sports facility was co-ed or not on women's participation in sports, also reflects the complexity of the phenomenon. This thesis also makes it possible to identify, in part, the strategies used by women to overcome some of the ideas and practices preventing them from participating in sports, a field primarily associated with men.

Panthéon des sports du Québec [Quebec's Sports Hall of Fame]

This thesis enhances our knowledge of women athletes and sports organizers in the province.

Sports Quebec

This thesis provides a better understanding of the history of women's participation in sports in Quebec before the first universal state activities in the field, specifically the interests pursued by various sport organizations in the organization of women's sports, such as the Association athlétique d'amateurs Le National [National Amateur Athletic Association], the Commission de la Palestre de l'Association catholique de la jeunesse canadienne-française and Association athlétique nationale de la jeunesse.

DIONNE, MICHELLE

Ryerson University

Standard Research Grant 2006

Sociocultural Barriers to Women's Participation in Sport: The Role of Self-Objectification and Stereotype Threat

Project Summary

Women and girls in sport have endured years of cynicism regarding their physical abilities, much of which is perpetuated via media portrayals that emphasize their appearance, femininity, and (hetero) sexuality rather than athletic competence. Although female athletes have made gains in international recognition, funding and opportunity, the negative representations and resultant stereotypes about women's suitability for sport remain. Although there is speculation that such attitudes could pose truly serious barriers to women's participation and performance in sport, remarkably little research has provided tangible evidence of this effect as yet. However, a parallel body of evidence shows performance decrements on cognitive tasks when female participants are primed with stereotypes about women (stereotype threat), and other studies have shown similar effects when attention is focused on a participant's appearance (self-objectification). There is reason to believe that the domain of physical performance could be similarly affected via these mechanisms.

The connection to participation in sport is as follows. If stereotypes about women and sport are internalized, performance may be compromised. After repeated attempts where one's success is short of optimal, motivation wanes for further participation. Choices are then made to engage in other activities where performance does not have the same meaning for one's sense of self-worth. If women do not feel competent or confident in participation in sport and exercise, then they will be less likely to do so. This is the question we wish to examine.

Our specific objective was to consider whether priming stereotypes and self-objectification can lead to performance decrements on physical performance tasks, including sports activities. We further hypothesized that these effects might be at least partially mediated through changes in self-perception, effort or motivation. Our preliminary findings provide some of the first evidence that sport performance can be compromised by priming stereotypes about women. Further, these stereotypes lead women to have a diminished view of their own physical competence, and are less likely to see themselves as athletic. Similar results are seen when attention is focused on the appearance of women's bodies rather than on their physical capabilities. We believe that stereotypes can constrain women from participating in sport because of the negative attitudes they engender.

Research Methods

We used true experimental designs in the laboratory as is common in psychological research to test our hypotheses.

In one study, we asked female participants play a golf game using a Nintendo Wii with either a male or a female avatar (game character). Half of the participants were told that there are no gender differences in performance on that task, and the remaining participants were told that men typically outperform women on the task. In addition to the performance task, participants completed self-report measures of athletic identification and physical self-perceptions.

In another study we primed a state of self-objectification (a type of self-attention on appearance) and had female participants perform an athletic task. Specifically, we randomly assigned participants to wear tight and revealing, or loose and concealing athletic wear. Then, to exacerbate the effects of self-objectification, participants in one group were asked to attend to and estimate the size of their own body by looking in a mirror and indicating widths of their shoulders, waist and hips on a nearby screen. Participants in a control group were similarly asked to estimate the size of a control object at three designated places. Finally, all participants were asked to complete two performance tasks: an actual test of golf putting performance (mini-putt) and virtual putting using the Nintendo Wii.

Research Results

The key findings are consistent with initial hypotheses. For the stereotype threat study, results indicated that women showed marginally better performance when they played with a male avatar as opposed to a female avatar, regardless of explicit information about gender performance. The results were even clearer for athletic self-perceptions. Women who had played with the male avatar were more likely to report seeing themselves as “athletic” and as being physically competent than those playing with a female avatar.

For the self-objectification study, results were less clear but there was a trend towards support for our hypotheses. That is, there was a tendency to see slightly worse performance from women when they were asked to wear tight-fitting and revealing clothing during the golf task. One only needs to consider the now infamous comments by Sepp Blatter (FIFA president) that women’s soccer would attract more fans if they wore tighter clothing to understand where such attitudes originate and where they might lead for women’s sport.

While these results are promising, there are limitations. Both studies would benefit from additional data collection and as such it will continue so that we can increase statistical power in the analyses. There are also additional controls that we would like to implement, and also replicate a parallel design with male participants to further explore gender differences.

Policy Implications

It has been established over decades of research that the media, particularly sport media, contain the types of messages theorized to contribute to self-objectification and to the formation of stereotypes about the appropriateness of sport for women. What has yet to be clearly established is evidence of the harm that these attitudes can have to women’s performance in and enjoyment of sport. If women do not see themselves as possessing the physical competence of a successful athlete, they are going to be less likely to take up sport activities and more likely to drop out once they have started. Existing policies to ensure equal access to sport for both genders, including equal access to funding, training and facilities must be continued and arguably enhanced. Researchers in this area in the US frequently refer to Title IX as a watershed moment for women’s sport in that country. Canadians must continue to ensure equal access with or without such a policy.

Next Steps

One clear future direction of this research for media psychologists would be in devising and testing media interventions so that women can resist the cultural messages regarding their ability to participate and perform successfully in sport.



Key Stakeholders and Benefits

The Canadian Association for the Advancement of Women in Sports <http://www.caaws.ca/e/index.cfm> may find these results of interest.

DORSCH, KIM D.

University of Regina

D. Paskevich, H. Riemer, R. Schinke

Standard Research Grant 2006

Psychological Skills and Factors Related to Ice Hockey Officials' Coping and Performance

Project Summary

Research focusing on the development of psychological skills in sport, has been conducted primarily with athletes and coaches. However, we know little on how to assist officials to enhance their performance. Thus, the general objective of this research was to better understand ice hockey officials' experiences in their sport and factors that influence their performance. More specifically, this research aimed: (a) to explore motives for becoming an ice hockey official, (b) to identify sources and determine the extent and levels of stressful experiences, (c) to identify coping strategies used, and (d) to identify skills necessary for successful officiating performance.

Despite popular perception, officials report moderate levels of stress due to officiating; however numerous potential stressors were identified. Focusing on changing the situation was the most prevalent coping style used. Other psychological skills that increased with certification level included goal setting, concentration, confidence levels, and the ability to remain positive and calm. The complexity of officiating skills was identified.

Research Methods

A mixed methodology involving both quantitative and qualitative methods was used. The project received approval from the University of Regina's Research Ethics Board and was supported by Hockey Canada and provincial governing bodies.

Quantitative sample. The final sample included 265 officials (91.7% males; 8.3% females) from Level 1 ($n = 63$), Level 2 ($n = 75$), Level 3 ($n = 86$), Level 4 ($n = 29$), Level 5 ($n = 8$), and Level 6 ($n = 2$). The mean age of officials was 28.2 years ($SD = 13.9$, Range = 10 to 59 years) with an average of 9.89 years ($SD = 9.8$ years, Range = 1 to 42 years) officiating experience. Two provincial associations provided lists of all registered officials. Officials in Levels 1 through 4 were randomly selected and contacted with invitations to participate. Attempts were made to contact all officials in Levels 5 and 6.

Qualitative sample. Twenty-five interviews with male referees certified in Levels 1 through 4 and 7 interviews with female referees certified in Levels 1 and 2 were conducted. Participants were recruited through their provincial hockey association. All interviews were semi-structured, audiotaped, and transcribed verbatim. All analyses were conducted with the assistance of an officiating supervisor who has 17 years of supervising experience.

Research Results

Motives for Officiating. There are intrinsic (the desire to stay involved with the sport, to stay active, and to develop skills), extrinsic (financial), and socially-related (the influence of relatives, friends, and coaches) motives for becoming an ice hockey official that may differ between genders. Effective recruitment strategies

would include utilizing coaches and/or parents to support and encourage officiating as a way to stay involved in the sport.

Sources and Intensity of Acute Stressors. Despite identifying numerous sources of stress within the sport, officials, on average, reported feeling only moderate levels of stress. Three main categories of stressors were apparent: (a) fear of mistakes, (b) verbal and physical abuse from players, coaches, and spectators, and (c) working with a partner official. Officials in the higher levels felt significantly more stress from fear of mistakes than those in the lower levels. Female officials also reported having to deal with inappropriate sexual and gender-related comments from players, coaches, and spectators.

Extent of Acute Stressors. The stressors experienced most often included making a wrong call, verbal abuse by coaches, being in the wrong location to make a call, and supporting a partner official after they make a wrong call. While threats of physical abuse were scarce in the lower levels (reported by 15.9% of Level 1 officials and 18.7% of Level 2), these incidents did rise to a somewhat alarming rate as the competitive level of hockey increased (27.9% of Level 3, 44.4% of Level 4, and 25% of Level 5 officials reported being threatened at least once per season or more).

Coping Styles and Strategies. Officials are more likely to try to change the situation than deal with their emotional reactions within the situation. Officials in the higher levels as compared to the lower levels reported (a) using more goal setting strategies, (b) feeling more confident in their officiating abilities, (c) feeling better able to concentrate during games and able to handle unexpected situations better, (d) performing better under pressure, and (e) staying more positive and calm during games.

Officiating intentions. The vast majority of the officials surveyed intended to return to officiating in the next season (88.6%). However when asked if they intended to become certified at the next level, only 45.4% of Level 1 and 2 officials and 14.5% of Levels 3 to 6 officials replied positively.

Categories of officiating skills and abilities. Skills necessary for successful officiating were categorized into five themes: (a) Judgment, (b) Psychological skills, (c) Physical characteristics, (d) Communication, (e) Knowledge, and (f) Application.

Limitations. The sample included very few level 5 and 6 officials and females. Attempts to target these populations are ongoing. There is also the possibility of a biased sample. For example, those who chose to become involved are also those who are highly committed to officiating and may not be representative of the entire population.

Policy Implications

One of the defining principles guiding the Canadian Sport Policy is that by 2012 the sport environment will be focused on development. Fundamental to achieving this goal is that all participants have the right to be provided with “a safe and secure environment” (p. 14). It is the responsibility of the on-ice official to make the game “fair” and “safe” (Hockey Canada, n.d.). Consequently, from recreational to professional levels, officials are needed to maintain the safety of the ice hockey environment. But one cannot forget the safety of the official themselves. The results of this research would suggest that officials experience a great deal of abuse, which is impacting their sport experience. Steps need to be taken to ensure officials are safe, particularly when these officials are children.

Next Steps

Numerous questions have arisen from this research. For example, reasons why officials are choosing not to go further with certification needs exploration. So too does the exploration of other performance factors and ways to assist officials gain valuable psychological skills. Finally, as one of the most cited solutions to the retention of officials is the inclusion of supervision and mentorship, ways to most effectively use this scarce resource needs to be explored.

Key Stakeholders and Benefits

The training of officials is an interesting dilemma as there is really nowhere for officials to practice their skills. Current training protocols focus mainly on rule knowledge and positioning. However, this research suggests that more intangible factors (e.g., psychological skills and judgment) are also crucial. Application of the knowledge discovered will be beneficial in the development of officiating training and development.

Key stakeholders include:

- Hockey Canada
- Provincial governing bodies
- National Hockey League
- Sport Officials Association of Canada

FRASER-THOMAS, JESSICA

York University

Post-Doctoral Stipend 2006

Understanding Adolescents' Positive and Negative Developmental Experiences in Sport

Project Summary

Currently, there is considerable public concern about youths' healthy physical and psychosocial development. As such, researchers in both developmental and sport psychology highlight a need to better understand how organized sporting activities may be contributing to youths' positive or negative development. The purpose of this study was to gain understanding of adolescents' positive and negative developmental experiences in sport. Athletes suggested their sport involvement facilitated many positive developmental experiences related to challenge, meaningful adult and peer relationships, a sense of community, and other life experiences. Athletes also highlighted negative developmental experiences related to poor coach relationships, negative peer influences, parent pressure, and the challenging psychological environment of competitive sport.

Research Methods

Participants included 22 competitive swimmers aged 14-18, purposefully sampled for maximum variation (i.e., mixed genders, clubs, coaches, competency levels, and engagement levels). Participants engaged in a semi-structured interview (approximately 1 hour) with questioning focused on participants' positive and negative developmental experiences in competitive swimming during adolescence. Data was analyzed using previously established guidelines (Tesch, 1990).

Research Results

Tables 1 and 2 present the findings that emerged from the data. Positive developmental experiences were grouped into five categories related to: challenge, meaningful adult relationships, meaningful peer relationships, a sense of community, and other life experiences. Negative developmental experiences were grouped into four categories related to: poor coach relationships, negative peer influences, parent pressures, and challenging psychological environments.

Generalizations to other sport environments should be done with caution due to substantial differences across sport programs; however, as the first study to gain such in depth understanding of adolescents' developmental experiences, findings serve as a springboard for future investigation and understanding of developmental experiences in other sport programs. It should also be noted that more females than males participated in this study. As such, future investigation should aim to gain a more comprehensive understanding of both genders' developmental experiences in sport, and potential differences in male and females' experiences.

Policy Implications

Findings highlight the critical importance of appropriate training for coaches of adolescent athletes. First, many athletes outlined concerns regarding coaches' ability to understand adolescents' psychological, social, and emotional development, highlighting a need for improved curricular content and practical learning in this area. Second, findings emphasize a 'disconnect' between coaches' perceptions of their behaviours and athletes' perceptions of coaches' behaviours. As such, coach

certification programs and pedagogical workshops should place additional weight on the importance and value of self-evaluation and peer-evaluation, and should outline effective methods for conducting such evaluations. Third, findings highlight coaches' important roles in facilitating adolescents' positive adaptation to the stressful environment afforded by competitive sport. Focusing more on communication skills, and strategically weighing the provision of a challenging environment with opportunities for success in that environment, are of utmost importance.

Next Steps

Findings suggest many new research questions, areas for future investigation, and subsequent implications. The following are a few examples:

- **Developmental Experiences:** Do developmental experiences vary across different sport environments (e.g., different types of sports, competition levels, investment levels)? How can positive developmental experiences be facilitated in all sport environments?
- **Coaches:** Do certain positive coach-related experiences 'balance out' or neutralize negative experiences? Can coaches facilitate adolescents' positive adaptations to sport-related challenge and stress?
- **Parents:** How are different youth sport programs addressing parent education, and how effective are they in doing so? Can more innovative methodologies (e.g. journals, ethnography) be used to gain deeper understanding of parent-adolescent relationships in sport?

Key Stakeholders and Benefits

With growing concern for youths' healthy physical and psychosocial development, this research is timely and of wide reaching interest. Findings serve as a starting point for future modifications and interventions in youth sport programming aimed at enhancing healthy development and facilitating prolonged engagement. Sport Canada is encouraged to disseminate freely.

Table 1
Positive Developmental Experiences: Categories and Themes

Category	Themes	N
1. Athletes were challenged	1. Sport structure demanded a strong work ethic.	18
	2. Coaches demonstrated belief in athletes' capabilities.	13
	3. Sport required commitment, discipline, and perseverance.	13
	4. Coaches provided meaningful constructive feedback.	12
	5. Coaches taught and guided the goal setting process.	8
	6. Coaches pushed athletes and held high expectations.	7
	7. Parents, siblings, and peers influenced athletes' work ethic	7
2. Athletes had meaningful adult relationships.	1. Coaches made special connections with athletes	15
	2. Sport provided an opportunity to develop special relationships with parents	13
	3. Coaches were good communicators.	10

	4. Coaches served as adult role models.	6
3. Athletes had meaningful peer relationships.	1. Sport provided an opportunity to develop close and unique friendships built on common interests.	16
	2. Club structure provided opportunities to develop special relationships with different aged peers.	15
	3. Sport provided opportunities for leadership and role modelling.	12
4. Athletes experienced a sense of community.	1. Clubs were family focused.	10
	2. Clubs hosted events.	7
5. Athletes had other positive life experiences.	1. Sport structure, coaches, and peers facilitated good time management skills.	9
	2. Sport travelling fostered independence.	9
	3. Sport experiences facilitated personal attributes.	9
	4. Sport experiences guided life values, interests, and careers.	9
	5. Sport provided opportunities to overcome stress and develop resistance.	5
	6. Sport served as a context to develop good communication skills.	4

Note. *N* represents number of participants that discussed a theme.

Table 2
Negative Developmental Experiences: Categories and Themes

Category	Theme	N
1. Athletes had poor relationships with coaches	1. Coaches were poor communicators	9
	2. Coaches had favorites	9
	3. Coaches were intimidating	7
	4. Coaches modeled a poor work ethic	6
	5. Coaches demonstrated inappropriate behaviors	6
2. Athletes were negatively influenced by peers.	1. Peers were jealous and negative towards each other.	4
	2. Peers demonstrated a poor work ethic	3
3. Athletes were burdened with parent pressure.	1. Parents pressured athletes to excel	4
	2. Parents pressured athletes to stay in the sport	3
4. Athletes experienced a challenging psychological environment	1. Sport provided a context for excessive stress.	6
	2. Sport provided a context for negative self-perceptions.	3

Note. *N* represents number of participants that discussed a theme.

FRASER_THOMAS, JESSICA

York University

J. Côté, N. Holt, T. Beesley, D. MacDonald, K. Tamminen

Standard Research Grant 2011

Assessing Youth Sport Programs' Facilitation of Positive Youth Development

Background / Context / Objective

With growing societal concern for youths' healthy development, extensive literature suggests organized leisure activities serve as optimal contexts to foster positive youth development (Larson, 2000), and sport has consistently been found to be the most popular organized activity among youth (Hansen & Larson, 2007). While youth's involvement in sport is associated with numerous positive outcomes (e.g., increased self-esteem, competence, academic achievement), it is also associated with negative experiences and outcomes (e.g., increased alcohol use, low moral reasoning) (See Zarrett et al., 2008 for a review). One possible explanation for these apparently conflicting findings, is that existing research has typically viewed sport as a single entity and largely overlooked the significant diversity in program philosophies, structures, goals, atmospheres and coaching approaches (Gould & Carson, 2007). As such, the purpose of this project was to examine associations between sport program characteristics and youths' developmental experiences within these programs.

Research Methods

Participants included 920 youth athletes aged 10-18 ($M=14.2$, $SD=2.4$; 53% male) in 32 different sports (80% team, 20% individual; e.g., soccer, competitive swimming, hockey, volleyball, basketball, field hockey). Given the purpose of the study, participants were recruited from varied sport programs; they were from diverse sport contexts (36% school, 64% club), were of mixed levels/abilities (i.e., 39% regional, 55% provincial, 6% national), and came from across communities (population 105-1.3 million) in three provinces (i.e., Ontario, Alberta, Nova Scotia).

To assess sport programs' characteristics, participants addressed numerous questions about their sport program, leading to the operationalization of 12 program-level variables: sport type (team, individual), sport context (club, school), number of coach(es), team manager (yes, no) age of coach(es), sex of coaches, training time (per year), competition time (per year), team sex (coed, same sex), age range of athletes, size of team, and community size. Participants' demographic data was also collected, leading to 5 individual-level variables: age, sex, years of involvement, birth month, and competition level.

To measure youths' developmental experiences in their sport programs, participants completed the Youth Experience Survey for Sport (YES-S; MacDonald et al., 2012), a 37-item tool measuring youths' experiences in 5 domains: (a) personal and social skills, (b) cognitive skills, (c) goal setting, (d) initiative, and (e) negative experiences.

Analyses involved five separate multiple regressions with the five domains of the YES-S (above) serving as the five dependent variables. Given the exploratory nature of the investigation, a stepwise regression model was used, with all 17 independent variables included in each of the five models.

Results

In the first regression analysis, we found 7% of the variance in personal and social skills was attributable to predictor variables. Significant predictors were sport type, training time, and team sex. Specifically youth

involved in team sports, who were involved in more training, and were members of mixed-sex (co-ed) teams had higher scores in the area of personal and social skills.

In the second regression analysis, 7% of the variance in initiative was attributable to predictor variables. Coach sex was a significant predictor of initiative development, meaning programs where coach and athlete sex were matched (i.e., males coaching males, females coaching females, or males and females coaching co-ed teams) were associated with more developmental experiences in the area of initiative. In addition, age was a significant predictor of initiative, meaning older athletes had more developmental experiences in the area of initiative.

In the third regression analysis, 9% of the variance in cognitive skills was attributable to predictor variables, with age being the only significant variable. Accordingly, older athletes had more developmental experiences in the area of cognitive skills. Finally, in the fourth and fifth regressions, there were no significant predictors, meaning none of variance in goal setting and negative experiences was attributable to the 17-predictor variables.

Policy Implications and Future Directions

Findings have important implications for enhancing sport participation among youth, and highlight areas for further research.

First, we found higher amounts of training time was associated with higher scores among youth in the area of personal and social attributes. The Long Term Athlete Development Model offers recommendations for training and competition percentages throughout development, with an increasing focus on competition with age and level. Clearly, while competition is important for the development of technical skills and tactical strategies, it appears that training may offer a more beneficial context for the development of important personal and social skills, and should not be overlooked. As such, it is important that policy and practice recognize the value of training time versus competition time in developing the person within the athlete.

Second, we found mixed-sex teams were also associated with higher scores in the area of personal and social attributes. These findings highlight the need to consider methods to create more opportunities for co-ed youth sport involvement, whether through exhibition games, training camps, etc.

Third, team sports were also associated with the higher scores in the area of personal and social attributes. One would assume that this is due at least in part to the interactive nature of team sports. Future research may want to focus on exploring how individual sports can also better facilitate personal and social attributes such as leadership and teamwork.

Fourth, we were particularly interested by the finding that coach-athlete sex match was associated with higher scores in the area of initiative. These findings suggest that when considering initiative development, we should be promoting females coaching females, males coaching males, and mixed-sexes coaching co-ed teams at youth levels. As such, these results highlight the continued importance of the Women in Coaching program. In particular, the program may want to prioritize the training and placement of female coaches on female-only and co-ed teams at youth levels. Future research may also aim to focus on why sex-matched coaches may be doing a better job of facilitating initiative among youth sport participants.

Finally, we feel it is also important to note non-significant findings of our study. We were somewhat surprised by our findings that the sport program characteristics examined did not predict youths' development in 3 of the 5 domains (cognitive skills, goal setting, or negative experiences) and that 8 of the 12 program

characteristics examined (i.e., sport context, number of coaches, team manager, age of coach(es), competition time, age range of athletes, size of team, community size) did not predict any developmental experiences. Further, when program variables were significant, they only accounted for a very low amount of variance in developmental experiences. Despite this, past research highlights that youth sport programs have the potential to facilitate both positive and negative developmental experiences and outcomes (Zarrett et al., 2008), so there is clearly more to investigate around this research question. Future research and policy should perhaps shift focus from program-level variables to other factors within programs that may be contributing to youths' developmental experiences in sport. For example, a growing body of literature is highlighting the critical role of the coach in facilitating positive developmental experiences among youth (e.g., Camiré et al., 2011), emphasizing the need to better understand coaches' roles and characteristics, in addition to their coaching processes and mechanisms, in order to best optimize resource allocation and distribution to facilitating youths' positive development.

Key Stakeholders and Benefits

NSOs, PSOs, True Sport, Women in Coaching, CS4L, Kidsport, PHE

FRISBY, WENDY

University of British Columbia

L. Thibault

STANDARD RESEARCH GRANT-RT Stipend 2006

Combating Social Exclusion in Sport and Recreation through Participatory Policy Development

Project Summary

The purpose of this study was to examine how experiences with physical activity for recent immigrant Chinese women living in Vancouver can inform Canadian sport and recreation policy at the local, provincial, and national levels to increase their participation. The Chinese population is the largest 'visible minority' group in Canada, yet little is known about the role of physical activities in local community centres in their settlement into a new country. While many important sport and physical activity initiatives are aimed at children and youth, much less emphasis is placed on adults or immigrants, which is surprising given immigration rates, the aging of the Canadian population, and the related costs to the health care system. Our focus was on women because their sport and physical activity participation rates are lower than men and our previous research has shown that women want to be positive role models for their children, they desire the health benefits, and they have a major influence over sport participation decisions within the family (Frisby, Reid, & Ponc, 2007).

Research Methods

Multiple qualitative data collection strategies included:

- an analysis of documents related to multiculturalism, sport and physical activity participation,
- interviews with immigrant Chinese women in Mandarin, Cantonese or English (n=50),
- interviews with local, provincial, federal policy makers (n=36) and staff from an immigrant service agency (n=5).

In addition, we organized a two-day workshop that brought the immigrant women, policy makers, immigration workers, and researchers together to discuss the findings and identify action steps that continue to be tracked through ongoing email communications with study participants.

Research Results

Our analysis reveals that involvement in community sport and physical activity has an important role to play in helping immigrant Chinese women with settlement. While many of them expressed interest in continuing activities done in their homeland, they were also interested in learning more about "Canadian activities" to improve fitness, decrease stress and social isolation, be good role models for their children, and adjust to their new country. Yet, most receive no information on the opportunities available to them.

Even though 1 in 5 Canadians are born outside the country (Statistics Canada, 2008) and we were able to find sport and recreation equity policies for girls and women, persons with disabilities, people on low income, and aboriginals - no policies were found related to multiculturalism and sport or physical activity. This confirms the findings of an earlier study by Donnelly and Nakamura (2006). Local, provincial and federal policy makers saw multiculturalism as an important policy development area, but were often unsure how to proceed because of the complexities involved. Government jurisdictions that create divisions in how sport, physical activity, and recreation are defined, resourced, and operationalized are a contributing factor.

Another overall finding was that sport and physical activity are not seen as a priority by immigration workers because of the emphasis placed on housing and employment, even though some had portfolios in the areas of health, community services, and public education. Yet the immigration workers saw potential health benefits for their clients by developing partnerships with local community centres to promote sport and physical activity programs, and expressed interest in being involved in future discussions on the topic.

Several action ideas on how to promote inclusion were generated when the new Canadians, sport and recreation policy makers, immigration workers, and researchers came together at the workshop. These included: providing free passes in the first year (and in subsequent years for those who continue to live on low income); partnering with immigration services; providing free facility tours and information sessions; childcare; multi-lingual communications, and family instruction in “Canadian sports.”

Policy Implications

The results of this study contribute directly to the Canadian Sport Policy goal, that has been adopted by the provinces, of increasing access and equity in sport for under-presented groups including visible minorities. It also informs Leisure Access Policies in recreation departments/community centres in Canadian municipalities.

We are preparing a Multiculturalism, Sport, and Physical Activity Workbook to share the ‘learnings’ obtained through this study with others and we plan to make it available through the Leisure Information Network (LIN). It is not our intent to provide a simple ‘recipe’ for policy development that can be implemented in other communities, because needs and interests differ both within and between different cultural groups. Rather our intent is to emphasize a process that includes partnerships and citizen engagement that can be adapted by different individuals, groups, and organizations to meet their specific aims and circumstances.

Next Steps

Replications of this study are needed to determine if the findings can be transferred to other Chinese immigrants and immigrants from other cultural groups. More research with cultural groups that considers intersections with gender, age, social class, disability, sexuality, etc. will enhance our understanding of the importance of sport and physical activity in their lives, the barriers they face, and the distinction, if any, between sport and physical activity for these groups.

Research is also needed on the sport and recreation policy and program development at the local, provincial and federal levels that can build capacity to support the inclusion of new Canadians and increase their participation rates (including those of adults), so they can reap the same benefits as other citizens. In addition, future research should examine multiculturalism, sport, and physical activity policy and success stories in other countries that could serve as a guide to new initiatives in Canada.

Key Stakeholders and Benefits

- Sport Canada and their provincial affiliates
- Canadian Parks and Recreation Association and their provincial affiliates
- Local sport organizations, clubs, leagues, teams
- Local community centres in municipal recreation
- Non-profit sport organizations (e.g. YWCA, YMCA)
- Immigration and social service organizations
- Local health authorities

GAGNÉ, CAMILLE

Laval University

Standard Research Grant 2007

Influence of Structural and Psychosocial Factors on the Level of Physical Activity of Preschoolers Attending Daycare

Project Summary

Objectives

- Check the level of physical activity of children aged three to five attending daycare.
- Identify the factors that affect the physical activity of children who attend daycare.
- Identify the factors that motivate educators to get children moving for at least two hours per day (as recommended by the *National Association for Sports and Physical Education*).
- Identify the factors on which should be based the interventions aimed at increasing the physical activity of children attending daycare.

Theoretical framework: Theory of planned behaviour (Ajzen 1991) and the Cohen et al. structural model (2000).

Research Methods

Population: Children aged three to five attending a child care facility, run by the government of Quebec, in the National Capital and Chaudière-Appalaches regions (Quebec, Canada), and their daycare workers.

Sample: Randomly selected child care centres from a list of daycare centres available on the Quebec Ministère de la Famille et des Aînés Web site. The final sample to identify the determinants of behaviour comprised 46 volunteer educators from 20 child care centres and 242 children whose parents agreed to their participation in the study. The sample to identify the determinants of commitment consisted of 174 daycare workers.

Measurement instruments: The psychosocial variables were measured through a self-reporting questionnaire, developed according to the guidelines of the theory of planned behaviour (Ajzen 1991). The structural variables and democratic-style interventions of the educator were measured with certain indicators on the Educative Quality Observation Scale (Bourgon & Lavallée, 2004). The children's physical activity was measured with an ActiGraph GT1M accelerometer, which was worn for four days, from the time they arrived at the daycare centre to the time they left. The accelerometer captured movements every 15 seconds.

Data analysis: Multilevel analyses, simple multiple regression and logistic regression were conducted to help answer the research questions.

Research Results

Children aged three to five participating in this study attended a day care service for an average of eight hours per day. While they were at the daycare centre, they engaged in low-, moderate- or high-intensity physical activity for an average of 53 minutes (SD=23.55) per day. On average, 13 (SD=9.19) of these 53 minutes involved moderate- to high-intensity physical activity. The following factors account for 19% of the variation in physical activity of children at the daycare centre: the daycare worker's commitment to getting the children moving, their perception that the other daycare workers do or do not get the children moving for two hours

per day, the worker's democratic-style intervention, the daycare worker's age, the quality of the material, and the age and sex of the child. The results also indicate that 33% of the daycare workers are not *highly* motivated to get the children moving for at least two hours per day. The following factors account for 85% of the variation in the daycare workers' commitment (motivation) to involving children in physical activity for at least two hours per day: their perception of control in terms of being able to get the children moving, the ethical standard and the worker's perception that individuals who are important to her think that she should get the children moving.

These results suggest that it would be useful to intervene in daycare centres to raise the level of physical activity of children aged three to five. Intervention should specifically increase the motivation of daycare workers who show a lower level of commitment to getting the children moving. This could be done, especially, by removing the perceived barriers (busy schedule, lack of time, inclement weather, etc.). Furthermore, they would need to perceive that the management of the daycare service, the children's parents and their fellow workers support their efforts to get the children moving for at least two hours per day. Child care centre managers and parents must therefore clearly formulate their expectations in this regard. It also seems that involving the children in physical activity is not a significant value for many poorly motivated workers; this aspect should therefore be developed further. For workers who are already motivated to get the children moving, it would be important to intervene to ensure they act on their commitment. The implementation intentions strategy (Gollwitzer, 1993, 1999) could also prove useful in this context. Daycare workers could also facilitate cooperation between children while laying down rules regarding safety and discipline. Lastly, it appears that children are more physically active when the material is of good quality (for example when they are adapted to their needs or foster various dimensions of development). This aspect could therefore be emphasized in daycare services concerned with getting the children moving.

The findings and suggestions presented here are applicable to the sample of daycare workers and daycare centres studied as part of this research. It is possible that the variables that explain the physical activity of children are not the same as those for another sample of daycare workers or child care centres. If this were the case, the intervention methods could therefore be different from those suggested here.

Policy Implications

According to the Long-Term Athlete Development Model proposed by Sport Canada, it is important that physical literacy be developed early in life. To this end, it is important to provide young children with the opportunities to explore and try out a variety of movements. Yet, the results of this study are in line with other findings in the literature and indicate that children aged three to five attending daycare centres are not sufficiently active. The findings of this study are useful particularly for developing or updating the child care centres' educational programs and post-secondary training programs for daycare workers. The results are also relevant to the management of child care centres and groups involved in child care, such as the Association du personnel-cadre des CPE. Organizations such as Québec en forme and Kino-Québec also have an interest because of their concerns about the active lifestyle and health of children.

Next Steps

This study has shown that it is important that daycare workers be better informed of the benefits and risks of physical activity. The findings also indicate that daycare workers do not have a clear idea of what is expected of them regarding the physical activity of the children they are responsible for. They would therefore have to obtain the proper training, equipment and support they need to promote the physical activity of children aged three to five.

Key Stakeholders and Benefits

The Quebec Ministère de l'Éducation, du Loisir et du Sport, Québec en forme, Kino-Québec, the Canadian Society for Exercise Physiology, the Canadian Fitness and Lifestyle Research Institute, Sports Québec, Active Healthy Kids Canada, the Quebec Association des CPE, the Quebec Association du personnel-cadre des CPE, the Canadian Child Care Federation, the Quebec Fédération des kinésiologues, the Canadian Kinesiology Alliance, the Quebec Institut de la statistique and others.

GAGNON, JOCELYN

Laval University

D. Martel, V. Michaud, L. Nadeau

STANDARD RESEARCH GRANT-RT Stipend 2006

Strategies Used by Physical Educators to Implement a Program that Encourages Their Students to “Adopt a Healthy and Active Lifestyle”

Project Summary

Essentially, the purpose of this research project is to implement a program, such as Team Pentathlon, in primary and secondary schools to encourage physical activity and study various aspects of the program implementation process. More specifically, we:

- describe the development of the students’ physical activities (nature, frequency, and duration of physical activity sessions) throughout Team Pentathlon;
- describe the students’ views about their physical educators’ actions to encourage them to participate in Team Pentathlon;
- analyze the action strategies used by physical educators to establish a process for “adopting a healthy and active lifestyle” during the implementation of Team Pentathlon; and
- analyze the students’ response within their team as part of Team Pentathlon to improve or maintain their level of physical activity.

The analysis of preliminary research data shows that 84% of the students, both boys and girls, who participated in the pentathlon were active or very active during the eight weeks of the program. More specifically, the pentathlon led them to increase the frequency, duration and intensity of their physical activity and diversify their activities by trying new activities and new sports. In fact, the amount of time the participants spent practicing physical activity is well above the recommendations of Quebec, Canadian and US organizations.

Research Methods

Team Pentathlon is an event that takes place over eight consecutive weeks, during which the members of each team of five students must collectively log at least 160 hours of physical activity. There are five activity categories. The 160 hours must include at least 15 hours of aquatic activity, 35 hours of team sports and games, 15 hours of cycling, 35 hours of artistic games and activities and 10 hours of two-person sports and games. A meaningful contribution from each student is imperative for the team to be successful. Five symbolic awards (Award of Excellence, Gold Medal, Silver Medal, Bronze Medal, Honorable Mention) are given out at the end of the pentathlon to the teams that meet those particular standards. Over the course of four training sessions, physical educators are instructed on methods to implement and complete Team Pentathlon. During the pentathlon, the students organize and manage their individual and team activities, as needed, to most effectively fulfill the pentathlon requirements. They record their results daily on a sheet provided for this purpose. Every two weeks, program administrators collect the students’ results, entering them on spreadsheets to produce summary reports that they then give to the physical educators. The physical educators, like the students, will use these results to re-adjust their action strategies, as needed, to promote the students’ successful response as much as possible.

Since the project started, nine physical educators from primary schools and three from secondary schools have introduced Team Pentathlon to over 1,150 students. Four other physical educators from secondary schools plan to test the program with their students in February and March 2011.

Each morning during the pentathlon, the classroom teacher gives the students a few minutes to record on the sheet all of their physical activity sessions from the day before. This way, the data on the students' physical activity is collected systematically. However, the students' level of practice and, as a result, their level of success, depends in part on the strategies used by their physical educator to educate, support and motivate them during Team Pentathlon. The description of these action strategies is created based on the physical educators' planning (what they want to do) and their reports on what they actually did during meetings with their students. Furthermore, the critical incidents technique (Brunelle et al., 1988) is used to gather descriptions from the students of how their physical educator's actions encouraged them to participate in Team Pentathlon.

It is also important to stress that Team Pentathlon is an event that requires a meaningful contribution from each student to be successful. Interviews are held at the end of the pentathlon with each team of students to determine the individual and team response to improve or maintain the level of physical activity. Finally, during the reporting phase, the students will fill out a questionnaire, giving their opinion on the design and requirements of Team Pentathlon, based on their experiences.

Research Results

Team Pentathlon really does encourage students to be more active over the eight weeks of the program. What's more, most participants said that they have maintained a good level of physical activity after the program. The motivating effect of the pentathlon is observable in both girls and boys. More specifically, 84% of the students, both boys and girls, who participated in the pentathlon were active or very active during the eight weeks of the program. More specifically, the pentathlon led them to increase the frequency, duration and intensity of their physical activity and diversify their activities by trying new activities and new sports. In fact, the amount of time the participants spent practicing physical activity is well above the recommendations of Quebec, Canadian and US organizations.

However, boys and girls do not have the same preferences when it comes to the type of physical activity they practice. Girls prefer individual or artistic activities, while boys participate more in team sports.

Most notably, 85% of students who participated in the pentathlon said that they wanted to do the program again because it really helped them be more active.

Policy Implications

This action research encouraged many students to participate in regular physical activity and sports. In addition, many students who were already active benefited from the program by experiencing new sports or activities that they did not already practice on a regular basis. Lastly, the study helped identify factors that contribute to students being more active (the data for this part of the study is still in its analysis stage).

Next Steps

Since the analysis of the results of our project is not finished, we have not yet fully met all of our objectives. We are presently working on describing the teachers' actions and students' strategies that had a positive impact on physical activity. However, our project has raised new questions. We found that some students



who were fairly inactive prior to the pentathlon became active during the program, while others remained completely or fairly inactive. Future research should look at the characteristics of this particular group. It would also be worthwhile to compare the effects of the pentathlon on students from various socio-economic backgrounds. Lastly, it would be interesting to examine the long-term “pentathlon effect” by measuring participants’ physical activity on a regular basis after the program is over.

GAVIN, JAMES

Concordia University

Standard Research Grant 2009

“Matching Activities to Personal Style (MAPS): Developing a Physical Activity Guidance System for High School Students”

Project Summary

A series of investigations was designed to create building blocks for a process of guiding physical activity choices among high school students and young adults based on psychosocial information and experiential processes. The initial studies explored patterns of physical activity (PA) interests and motivations over the lifespan, as well as their relationships with individuals’ personal style characteristics. Additional studies provided insights regarding the degree to which perceptions about the psychosocial characteristics of different physical activities were commonly held in the population. The final study supported by this grant was an attempt to determine whether beliefs about changes fostered by physical activity could be influenced through information and personal experience.

Research methods and results

Lifespan differences

How do perceptions of and motivations for different sports and physical activities change with age? As a foundational study in this series of investigations, we examined data obtained from a sample of 1,885 individuals ranging in age from teens to 70s. They were grouped into 5 age categories: Teens, 20s, 30s, 40s, and 50s+.

Activity Interests: Based on a questionnaire evaluating participants’ interests in 50 different types of activities, eight factors or dimensions showed different levels of interest over the lifespan. On three of these dimensions (yoga and stretching, non-gym leisure activities, weight training), interests remained consistent across the lifespan; for the dimensions of martial arts, class training, group cardio, competitive sports, and outdoor activities, significant differences among age groups were found, along with linear declines in interests across the lifespan.

Motivational Interests: Using the same sample and methodology, another instrument in the questionnaire measured 20 motives for exercising. These were reduced to four dimensions through factor analysis, and scores on these dimensions were compared across five age groups. Motives relating to remaining ‘toned and fit’ as well as those pertaining to stress reduction remained relatively constant across the age groups. Surprisingly, however, motivations to exercise based on having fun and being with friends, as well as those involving a quest for challenge, adventure, enhancement of self-esteem, and learning new skills for life declined with age.

Physical activity and character development

In our research we explored a model of physical activity guidance based on the belief that individuals could be assessed on different psychosocial dimensions (e.g., sociability, risk taking) that were also embedded in psychosocial demands characteristic of different physical activities. The intended guidance process underpinning our work rested on a premise that each physical activity has a unique psychosocial profile that

would match to varying degrees with individual participants' psychosocial profiles. Before advancing toward the design of a guidance process, we needed to know whether our premise was valid.

Psychosocial profiles of physical activities: We chose eight distinct categories of physical activity and asked individuals to rate these activities on seven psychosocial dimensions. Moreover, we selected our sample based on their 'knowledge-level' pertaining to sports and activity, and grouped participants into three categories – social science students (206), exercise science students (146), and exercise professionals (76). The eight activities were: dance, solo cardio, team sports, martial arts, racquet sports, weight training, yoga, and fitness classes; the seven psychosocial dimensions were: sociability, predictability, aggressiveness, competitiveness, motivation, mental focus, and risk taking. The eight activities differed significantly on all seven psychosocial dimensions. Moreover, ratings were relatively homogeneous with few significant differences on the psychosocial requirements across the three knowledge levels.

Relating 'personality' to activity interests: Having demonstrated that activities could be distinguished on their psychosocial characteristics, we then explored whether different 'types' of individuals (based on psychosocial characteristics) showed different PA interest patterns. Two studies examined this question. The first involved the sample of 1,885 participants mentioned above. Here we found that individuals with higher competitiveness, greater risk taking propensity, and stronger aggressive characteristics showed stronger preferences for martial arts, competitive sports, and adventurous outdoor activities. In a similar vein, data revealed that individuals with higher propensities for thrill seeking and spontaneous actions were drawn more to martial arts and adventurous outdoor recreation. Finally, this study revealed that individuals with greater emphasis on predictability, higher mental focus, and self-motivated action tended to have stronger preferences for weight training and lesser interests in class-based activities. Our second study involved a smaller sample and a slightly different measurement strategy. With 286 participants who rated themselves on seven psychosocial dimensions and interest levels for eight types of activity, we discovered that (1) individuals with lower levels of competitiveness expressed less interest in team sports and weight training, (2) individuals desiring high predictability in their programs and who had stronger degrees of self-ascribed aggressiveness showed greater preferences for fitness class and solo cardio activities, (3) individuals with lower self-reported risk taking were less keen on martial arts, and (4) highly social individuals expressed greater interests in dance, fitness classes, and yoga/Pilates, but less interest in solo cardio activities.

Changing beliefs: In moving closer to creating sound building blocks for a guidance system based on psychosocial profiling, we designed a field experiment to estimate whether beliefs about 'what changes' through physical activity participation can be influenced in a way that would allow individuals to draw upon a broader range of motivations for participation. Our experiment involved 208 participants who were exposed to a 2-hour information + experience session focusing on exercise-induced personal changes, and involving a comparison of their psychosocial profiles with those of different sports and physical activities. Beliefs about changes in cognitive, physical, psychosocial, and spiritual functioning were assessed before and after the intervention. Though beliefs about cognitive, physical, and spiritual changes remained relatively constant, the intervention was shown to have a significant impact on participants' beliefs about the degree to which sports and exercise can change one's personal characteristics.

Policy implications

A few of the policy implications of these investigations are as follows:

1. Different strategies seem warranted for increasing PA participation in different age cohorts.
2. Promotional campaigns for increasing rates of active living should emphasize different motivational bases.

3. The linkage between personality and sport interest might be further explored to understand the causal direction of this relationship.
4. Support should be increased for research that emphasizes intervention processes related to life-enhancing non-physical changes supported by PA participation.

Next steps

The current research provided support for important elements underpinning the creation of a sport and physical activity guidance system rooted in multidimensional characteristics of the individual. However, further documentation is necessary. For instance, further validation of measurement tools is deemed critical. Moreover, research addressing the types of non-physical changes promoted by regular engagement in physical activity would be most useful. Finally, investigations exploring experience-based exercises that increase individuals' awareness about the wide-ranging changes supported by PA engagement would add directly to guidance system development.

Key stakeholders and benefits

As publications appear on the results of these investigations, press releases have been and will be generated to increase public awareness of the findings. In addition, large conferences involving physical educators and fitness professionals would provide excellent venues for enhancing understanding of these findings. At this point, more research would be required before more systematic interventions into fitness agencies, health centers, and school systems would be justified.

GENDRON, MARTIN

University of Quebec at Rimouski

É. Frenette, P. Valois, C. Goulet

Doctoral Stipend 2012

Survey on Participation in Amateur Soccer in Canada

Project abstract

In general, sport is seen as a powerful contributor to social and personal development (Sport Canada, 2002). The benefits of physical activity and sport have been the subject of numerous studies (Gendron et al., 2005; Parfitt & Eston, 2005). Nonetheless, the number of young North Americans who play sports has been decreasing for a number of years (CDC, 2005, 2006; Sport Canada, 2003). In 1998, barely half of Canadian children aged 5–14 were actively involved in sport (Sport Canada, 2000). Why does participation in physical activity and sport decline constantly among Canadian, beginning in adolescence? Soccer, the most frequently played federated sport in the country, is a world-wide phenomenon that knows no boundaries or limitations and enjoys unprecedented popularity among young people. How can we learn from the sport situation in Canada in order to maintain a solid rate of participation among young people in a healthy and formative environment?

The *Survey on Participation in Amateur Soccer in Canada* had four objectives: (1) to develop and validate four versions of the survey questionnaire (player, parent, trainer, referee; English and French versions); (2) to compare the views of players, parents, trainers and referees in terms of the factors that could influence participation in soccer among U12 to U18 players; (3) to identify the factors relating to the decision of young Canadian players to start participating and to continue or abandon the sport. The results will be used to compare the views of the various stakeholders and to identify the positive aspects and potential issues. Preventive action may be recommended. The ultimate purpose of this research is to help produce healthy, responsible and engaged Canadians.

Research methods

In total, 3,178 participants filled out one of the four versions of the questionnaire (on paper or online) (n players = 1,395, of which 50.8% were women; n parents = 1,130 of which 61.0% were women; n coaches = 557 of which 85.8% were men; n referees = 96, of which 78.2% were men). The participants were recruited on a voluntary basis through an invitation sent by the Fédération de Soccer du Québec and the Ontario Soccer Association to their clubs/members. The four versions of the questionnaire (which were later translated from French to English) were developed and validated with either an expert committee and/or a sample of players.

Two theoretical approaches were used because of their complementarity. In terms of development, Bandura's social learning theory (1986) was selected: according to this theory, people develop through a constant bidirectional influence of three sets of factors: personal, behaviour and the environment. This behavioural theory was chosen because specialists agree that in addition to specific personal predispositions, the environment and the individual play an important role in behavioural adoption (Kauffman, 2005; Weinberg & Gould, 1997). Moreover, having four sources of information (players, parents, coaches and referees) provides additional information.

In terms of environment, Ajzen's theory of planned behaviour (1985) was chosen in order to study the effect of environmental and political interventions on the adoption and maintenance of an active lifestyle. The Ajzen model (1985) verifies whether an environment is conducive to the practice of physical activities such as soccer, either through the quality of the conditions of play, the quality of the sport and leisure equipment or the quality of the physical activity programs offered. The different scales of the theory of planned behaviour present acceptable internal consistency coefficients: behavioural beliefs (11-12 items, $\alpha = .61$ to $.66$); normative beliefs (17-18 items, $\alpha = .73$ to $.89$); control beliefs (7 items, $\alpha = .88$ to $.94$); external variables – unsportsmanlike behaviours (11 items, $\alpha = .89$ to $.91$).

Research results

Initial factors associated with participation. The four actors (players, parents, coaches, referees) agree on their first four choices of behavioural beliefs associated with the benefits of playing soccer (pleasure, physical fitness, friendships, technical improvements). In fact, these four factors are general and could well be found for other sports activities to explain the benefits the players wish to experience from playing a sport.

Factors associated with continuing participation. Opinions of family members can play an important role with respect to the factors associated with and influence on a given behaviour (ref. social standards and normative beliefs). When asked about the factors that could result in a player deciding not to continue playing league soccer in a subsequent season, the respondents' opinions are varied. The first choice of the four actors assigns a determining role to another person with the power to influence the player's decision to stop playing soccer (players = quality of refereeing; parents = quality of the coaches' training; coaches and referees = pressure from parents concerning the team's athletic performance). Among the list of factors, the choices (especially for players) focused on the atmosphere and the quality of the adults' training as a possible explanation for a potential decrease in pleasure in playing soccer and for ending participation altogether. The cost of basic equipment, the equipment provided by the club and the quality and available of fields seem to have little impact.

The players' opinion on the ability to continue playing soccer in the future (ref. control beliefs) is less definite than that of the adults. The role of the father (and the father's opinion) with respect to the player's decision to continue or stop playing soccer seems to predominate over that of the mother. According to the results we obtained, star professional players are not a factor in amateurs' decisions to continue playing; as to whether star players have an influence on the behaviours of amateurs when they play their sport, another study will need to be carried out to investigate that question.

External variables – unsportsmanlike behaviours. The presence of unsportsmanlike behaviours (ref. verbal intimidation (VI), physical intimidation (PI), physical violence (PV)) represents a risk that a player will stop playing soccer. Among the factors with the most power to influence the player's decision to stop playing soccer, the four actors all had the same second reason, the presence of unsportsmanlike behaviour. Of 11 behaviours studied, intentional pushing (PI), elbowing (PV), mockery or sarcasm (VI) and insults (VI) are among the top five reasons given by all the actors. It should be noted that the players and referees (actors on the field) reported a much higher number of unsportsmanlike behaviours than did the parents or the coaches (the figure was almost double in some cases). The standard deviations are high, which leads to a large variability in results. This calls for caution in terms of interpreting and generalizing; complementary analyses will need to be done factoring in the differences based on variables such as sex, age and competition level.

Limitations of the study. The limitations include limited access in reaching participants by email (Ontario portion); the high cost of paper surveys on the sides of playing fields during tournaments; a sample from two

provinces (the majority from Quebec); and a representation between the sexes in each group that was not as expected (e.g. players, parents). Finally, the results of the questionnaire reflecting the view of each of the actors would benefit from being cross-validated through observations in a game setting.

Policy implications

The results of this survey will give provincial and regional soccer associations and federations a better understanding of what makes young people take up a sport, continue participating in the sport and what affects their (possible) decision to continue to stop participating during adolescence. The strategic policies of the FSQ and the OSA and coach and referee training may be improved by taking into account the various results and findings. Moreover, the ethical code of each actor involved in the sport (players, parents, coaches, referees) may be enhanced and explained through the examples from the survey report. In addition, in light of these results, the Canadian Sport Policy (2012) may reiterate the importance of implementing a safe, healthy environment in which young people can play their sport by meeting their needs to have fun, stay active and healthy and to be surrounded by friends and adults who are skilled in their coaching and developmental roles.

Next steps

The next steps of this research will include publishing the results of the analyses based on different variables (e.g. sex, age, competition level, region) and overcoming specific obstacles in order to do a follow-up with the participants (mini survey) to verify whether they continued or stopped playing soccer, and the reasons why. In terms of the adults, it would be worthwhile to further analyze the socioeconomic and familial issues related to soccer, especially for competition levels AA or higher (e.g. travel, various costs). A subsequent study could therefore focus on the influence of moral action (e.g. moral reasoning, moral atmosphere, social environment), as well as of pre-existing factors (frustration, activation), on the players' behaviour. By collecting the views of the players and adults involved (parents, coaches, referees) concerning moral action in given situations, we would like to better understand the process and factors influencing the decision of Canadian amateur soccer players to resort to aggression.

Key stakeholders and benefits

For all the reasons listed in the "Policy implications" section, we would suggest distributing the report to the following organizations: Sport Canada, Soccer Canada, provincial and regional soccer associations and federations, the National Coaching Certification Program, the Officials Training and Certification Program, provincial physical activity promotion organizations (e.g. Kino-Québec, ParticipAction).

GILLIES, JENNIFER

University of Waterloo

Doctoral Stipend 2008

A Framework for Creating a Campus Culture of Compassion: A Participatory Action Research Approach to Equality

Project Summary

This dissertation united key stakeholders from the University of Guelph community in order to examine issues around accessibility and inclusion of students with disabilities in campus recreation and sport opportunities. The research team included representatives from the University of Guelph's Centre for Students with Disabilities and the Department of Athletics, an undergraduate student with a disability, and two university alumni. The ultimate goal was to develop a planning framework to guide universities in supporting the human rights and inclusion of students with disabilities in extra-curricular campus life. What emerged from data analysis was the development of a framework for creating a Campus Culture of Compassion. This framework, which encompasses six guiding principles, three fundamental characteristics, and six process pieces, explores how universities can implement programs, policies, services and practices that better respond to the changing and diverse needs of university students with disabilities in order to ensure their full engagement in all areas of campus life.

Research Methods

This dissertation used a Participatory Action Research approach as the strategy of inquiry. This involves the researcher working as part of a collaborative research team in order to connect the research to larger social change efforts. The overall goal was to develop a framework to guide universities in creating an inclusive campus community, particularly pertaining to extra-curricular activities. In order to ensure that the framework included perspectives of all key stakeholders, interviews were conducted with five research team members and 18 University of Guelph stakeholders, including: students with and without disabilities, staff members from the Department of Athletics and the Centre for Students with Disabilities, faculty members, and senior administrators. Transcripts of the interviews were analyzed for common patterns which were then clustered together into broader categories. Based on this analysis, a five page draft of the framework was created and then shared with all members of the research team. The research team collectively worked through and reflected on the initial framework in order to provide examples for the components and to identify areas that needed further development. In order to ensure that the framework truly reflected the perspectives of the participants, all participants were invited to participate in a 'focus group' where we provided an overview of the preliminary findings. Suggestions and recommendations from the focus group and team meetings were incorporated into the final framework.

Research Results

What emerged from data analysis was the development of a framework for creating a Campus Culture of Compassion. This framework centres around six principles that help guide universities toward developing a campus culture that is compassionate. Essentially, a campus culture of compassion values: (a) access for all; (b) diversity and uniqueness; (c) interdependence and social responsibility; (d) diverse knowledge bases, voices, and perspectives; (e) the power of learning and education as a tool for social change; and (f) the whole person. The framework also indicates three fundamental characteristics that a campus culture of compassion must possess. In essence, post-secondary institutions and their community members must be: (a)

interconnected, (b) supportive and enabling, and (c) informed. Six process pieces are included in the framework which enables a campus culture of compassion to be fuelled and sustained over time. These pieces include: (a) creating a vision for the future, (b) constructing a plan to achieve the vision, (c) securing funding to put the plan in place, (d) thinking critically and measuring actions against the vision, (e) being proactive to making change happen, and (f) reaching beyond compliance. The framework encourages university stakeholders to collectively reflect, dialogue, and collaborate in order to create broader systemic changes. These changes are necessary since constraints to campus engagement can threaten a student's well-being and sense of self. This framework can serve as a starting point to initiate these conversations and inspire universities to use a participatory approach to encourage positive social change within the university context.

Policy Implications

This study offers insights into the barriers that students with disabilities face when seeking to participate in campus recreation and athletics while providing practical strategies to combat these barriers.

Government of Canada policy acknowledges that in order to have claim to full citizenship, athletes with a disability must be provided equivalent opportunities to develop their abilities and to compete at provincial, national and international sporting events. The framework that emerged from my dissertation is aligned with this initiative and seeks to shed additional light on the important role that recreation and athletic engagement plays within an individual's life, and within a community as a whole. The framework informs communities on the core values, characteristics and process pieces that are essential to creating an inclusive and accessible environment.

The framework from this dissertation reveals that a major component of being involved in sport and physical activity is being adequately informed. Thus, persons with disabilities must have access to information regarding: a) the benefits of being physically active, b) available programs and services, and c) the accessibility of an event or service prior to participation. This study highlights the benefits of developing mutually benefiting partnerships both within and outside of one's core community in order to streamline services, provide support in a holistic approach, blend resources, and diminish redundancies. A collaborative approach will also help to increase participation rates, reach a broader target audience, and provide diverse and supportive services.

Next Steps

The perspectives of key stakeholders within a university, highlighted in this study, may be transferable to other community groups and within other community contexts. The components of this framework can ideally be used to encourage communities to collaborate and create community conversations that raise awareness of each other's perspectives and work towards collective problem solving. However, future research may need to explore the perspectives of other community groups, particularly those who are marginalized, in order to enhance the relevance and usability of the framework within a generalized community setting.

Future research could also develop a 'tool kit' for creating community cultures of compassion based on the main components of the framework. The 'tool kit' would draw upon the insights gained from the framework, and would follow a similar format of guiding principles, characteristics, and process pieces. Future research could document the process by which a university, or other community, utilizes the framework or 'tool kit'. Such a study would provide insight on the usefulness of the framework or 'tool kit' within another community context both in terms of its ability to create campus partnerships and conversations, as well as its ability to

facilitate action or social change. It would also shed additional light on the process by which university stakeholders, or community members, can use a participatory approach to unite relevant individuals in order to achieve a shared outcome.

Key Stakeholders and Benefits

The following organizations could benefit from the findings of this study:

- Ontario University Athletics Association (OUA)
- Canadian Interuniversity Sport
- Canadian Intramural Recreation Association (CIRA)
- Sport Canada
- Canadian postsecondary institutions
- Canadian Sport Associations

GRAHAM, JEFFREY D.

McMaster University

S. Bray

Doctoral Stipend 2012

“Keep trying, it took me a while to get that too!” The effects of peer feedback on relation-inferred self-efficacy (RISE), self-efficacy, and motivation in youth sport

Project Summary

Peer influences are among the strongest social influences of children’s attitudes and behaviours at early ages. Yet, despite the potential for peer influences to change behaviour, few studies have investigated the role of peer influences on children’s thoughts about their physical capabilities or sport participation. Beliefs in our own abilities, or self-efficacy, guide what tasks we choose to do and the degree to which we persist at those tasks. Self-efficacy beliefs arise, in part, through our interactions with others, and are influenced by the perceptions we have about what others perceive our abilities to be. Our perceptions of another person’s confidence in our abilities are called relation-inferred self-efficacy beliefs (RISE). RISE is thought to play an instrumental role in the development of self-efficacy as well as motivation.

Many children drop out of sport after just a short period of time because they are “not having fun” anymore or doubt their abilities to improve or be successful. Children often rely on feedback from coaches and instructors to influence their perceptions of their sporting abilities as they often lack the experience and knowledge necessary to gauge how well they are doing when they are learning sport skills. However, in many sport environments there are usually only one or two coaches instructing several participants, which may limit opportunities for children to receive performance feedback or encouragement. In comparison to limited contact with coaches, there are usually many peers or teammates who can provide positive encouragement or feedback.

Here, we were interested in children’s perceptions about what their peers believe about their abilities and how these RISE perceptions might affect how children feel about themselves and their sport experiences.

Research methods

Semi-structured interviews were conducted with 30 children aged 8-12. Children responded to a series of questions and provided examples as well as contextual information regarding their sport experiences when they received feedback from their peers that informed their self-efficacy and RISE.

Research results

Results showed that children are cognizant of self-efficacy and RISE within sport settings and often use verbal and nonverbal feedback from peers to inform these perceptions. Examples from study participants include:

- **Efficacy-building Statements**

“They encourage me to make me feel more confident. They say things like “Come on, you can do it, you got that swing going!” I like playing [baseball] more because I am not getting bullied in it. It makes me feel happy on the inside and it makes me just want to play more.”

“In hockey I don’t really shoot and I am shy buy when my friends say “you can do it” I shoot more and I feel like I can really do it because they think I can”

- **Task Instruction**

"I was batting and I was holding my hands like this [demonstrated] and my friend showed me how to hold it like this [demonstrated] and then I did it like that and it worked. I hit it straight so I do it like that all the time. [What's special about that?] When they show me tips and then say "I know you can do it now" it makes me feel like I will be able to do it and do it right.

- **Challenging/Special Opportunities**

"When they put me in important positions I know they believe in me. [Can you tell me a story about when this happened?] One time we were playing football and my friend wasn't throwing that good and he wanted me to play quarterback instead because he knew I could do it better. It made me feel special and I knew I would do a good job"

- **Conclusions:** We found that children can identify specific communication cues from peers that can increase their RISE as well as self-reported confidence, motivation, and sport participation. Although all of the participants were easily able to provide specific examples, caution should be exercised when interpreting the findings as the participants' sporting experience ranged from recreational to competitive environments and we are uncertain whether feedback from peers may be more or less influential in these different environments.

Policy implications

Engaging positive interpersonal experiences between children and their peers is an important aspect of building confidence and encouraging motivation for sport participation. Coaches and instructors should be aware of the potential positive impact that children can have on each other in sporting environments and are encouraged to utilize athletes to provide feedback to each other (e.g., demonstration of a skill followed by an efficacy-building statement).

Next steps

Future research is needed to investigate when to encourage children to use RISE-enriched feedback with their peers, what types of feedback may be the most influential for certain sporting situations, whether the skill of the athlete determines if this feedback is more or less influential, and ultimately if systematic use of RISE-enriched feedback has an enduring impact on continued sport participation.

Key stakeholders and benefits

- Recreational Sport Camps
- Community Sport Programs (e.g., Minor League Soccer, Baseball, Hockey)
- Coaches Association of Ontario
- Coaching Association of Canada
- Provincial/territorial teaching organizations (e.g., Ontario Teachers' Federation)

Although research investigating the positive impact that peers can have in youth sporting environments is still in its infancy, coaches, sport instructors, and teachers are encouraged to be aware of the potential impact that children can have on their peers when providing RISE-enriched feedback. As well as, the possibility of using children to provide RISE-enriched performance feedback to each other when they may be otherwise unavailable to do so themselves.

HAMM, SHANNON

University of Western Ontario

Doctoral Stipend 2006

Can Conflict be Productive? An Examination of Conflict in Non-profit Sport Boards

Project Summary

Given the importance of board decisions on the development of sport programming in Canada, an investigation of the impact of conflict within these groups is essential for effective board functioning. Thus, the purpose of this project was to examine the nature, level, and impact of task, relationship, and process conflict in provincial sport organization (PSO) boards. In defining group conflict, three types of conflict were examined: Task conflict was viewed as disagreement among group members about the content of tasks; process conflict was defined as disagreement about how to accomplish tasks; and relationship conflict was described as disagreement that is personal in nature. For each conflict type, perceptions of conflict, the factors that influence perceptions of conflict and the outcomes of conflict were explored.

Research Methods

This study of sport organization boards was conducted in the fall and winter of 2007/2008. A survey was used to collect data regarding the individual (e.g., age) and group (e.g., routine or non-routine decision type) characteristics of members and their boards, as well as each board member's perceptions of: intragroup conflict, board decision quality, satisfaction with their board and board commitment.

A sample of board members of PSOs within Ontario was surveyed. The study was limited to active board members and included individuals with central (e.g., president) or peripheral (e.g., treasurer) roles. This sample was chosen because of the influence of PSO board members whose decisions ultimately impact the delivery of sport within the province.

A total of 41 of the 86 registered PSOs in Ontario agreed to participate in the survey study. Two hundred (200) surveys were sent out. The survey was completed by 74 board members for a response rate of 37%.

Research Results

Decision Quality. When task, relationship, and process conflict increased, the quality of the board's decisions decreased; decisions were less likely to be based on the best available information or the board's current strategies. Further, relationship conflict was the strongest predictor of decreased decision quality (i.e., when conflicts were personal in nature, lower decision quality resulted).

Board Member Satisfaction. When each conflict type increased, board member satisfaction with their board decreased. Relationship and process conflict were the strongest negative predictors of board member satisfaction (i.e., when disagreements were personal in nature or about "how you do things" as a board, participants had negative feelings toward their board).

Board Member Commitment. When all three types of conflict increased, board member commitment decreased. Relationship conflict was the strongest predictor of decreased board commitment (i.e., when differences of opinion were personal, board member identification with their board decreased).

Further, task conflict and process conflict led to, or triggered, relationship conflict, which then had a negative impact on outcomes. Thus, task and process conflict were likely to result in dysfunctional relationship conflict. For instance, if boards were disagreeing about a task (e.g., where to hold their next championship) or how to complete a task (e.g., who will do what) this often lead to tension or friction among board members which resulted in negative impacts on both group and individual outcomes.

The results presented above provide insight into the nature of conflict in PSO boards, however there are a few limitations that should be noted. First, given the purpose and exploratory nature of the study the results were analyzed at the individual level, and thus conclusions regarding the nature of conflict within specific PSO boards cannot be made. Second, task, relationship, and process conflict were found to be highly related to one another. Although, multicollinearity statistics were used to demonstrate that three separate types of conflict were in fact represented in the data, the participants may have had trouble distinguishing between each conflict type. Therefore, it is important to gain a more comprehensive understanding of board member perceptions of conflict in this context. This could be accomplished through further research using qualitative methods (i.e., interviews and observations).

Policy Implications

The results demonstrate that conflict has a negative impact on decision quality, satisfaction, and commitment in this setting. It is recommended that policy makers create greater awareness of intragroup conflict in sport boards. Given the negative relationships seen here, strategies to educate board members on the nature and impact of conflict should be developed to improve PSO board capacity around identifying and managing conflict in a proactive and effective manner.

Next Steps

Preliminary results suggest that continued research is needed to understand the mechanisms that underlie the conflict process, for instance: how potential positive task conflicts lead to negative outcomes, what causes task and process conflict to lead to relationship conflict, and how conflict impacts board performance. Working with non-profit boards and policy makers to develop longitudinal examination of the conflict process may help identify some of the “triggers” to conflict and potentially improve the effectiveness of conflict management in this setting.

The results presented here have been accepted for publication in a top-tier sport management journal and have been presented at the 2008 North American and European sport management conferences. Since this survey study, a qualitative research project was completed that further explored the nature of conflict in PSO boards. These findings have been submitted to the 2009 North American Society for Sport Management (NASSM) student research paper competition and a working paper is currently in review for publication.

Further, the importance of connecting this research with the sport community is recognized. As such, a formal written report summarizing the results and subsequent implications for management has been submitted to each PSO involved in the study. Moreover, continued networking with Sport Canada and the non-profit sport community has been anticipated through attendance and participation at subsequent SCRI conferences.

Key Stakeholders and Benefits

- Provincial sport organisations
- The Sport Alliance of Ontario
- The Ontario Government (and other provincial governments)
- Sport Canada
- National sport organisations

HARVEY, WILLIAM J.

McGill University

C. Pressé, R. Joober, S. Wilkinson

Doctoral Stipend 2006

Children with ADHD and Physical Activity Behaviours: What Happens When the Village Turns its Back on You

Project Summary

The three main objectives for this research project were to: (a) describe the physical activity (PA) behaviours of children with attention-deficit hyperactivity disorder (ADHD), (b) explore the feelings and attitudes that children with ADHD and their parent(s) had about PA, and (c) generate a grounded theory of PA and children with ADHD. The conclusions of this research project include: (a) differing PA planning subtypes were observed for children with ADHD, a positive finding for future self-regulation strategies in PA and sports, (b) children with ADHD and their parents have social inclusion motives for PA participation, (c) the social exclusion of children with ADHD from many daily activities, and (d) an urgent need for structured education programs and specific PA and sport programs that include children with the non-visual disability of ADHD.

Research Methods

Central Research Question: This research project explored the PA experiences of children with ADHD to answer the following question: How do children with ADHD choose to get involved in physical activity?

Data Collection: There were three main procedures with this research project. First, each child with ADHD performed the *Test of Gross Motor Development-2 (TGMD-2)* was used to assess locomotor and object control skills (Ulrich, 2000). The Movement Assessment Battery for Children-2 (Henderson et al. 2007) was used to assess balance skills and manual dexterity skills.

Second, each child recorded his/her daily PA for a two-week period on a recording sheets. These sheets documented PA that each child participated in. Each child was provided with a disposable camera to have an activity leader, friend or parent take pictures of their PA participation in various contexts. The daily recording sheets and pictures were collected by a research assistant. Approximately two weeks after all information was collected, the children were then asked place their PA photographs in a scrapbook. A research assistant interviewed each child while she or he created their PA scrapbook. Each scrapbook interview was videotaped.

Third, parents expressed their viewpoints from a current perspective. We conducted videotaped interviews with a parent(s) about their child's PA experiences. Parents may adopt an important part of children's PA involvement by assisting in the activity selection process. Parental views on their child's PA behaviours produced a substantial part of our understanding of the children's play behaviour. Child and parent data are being combined to develop a grounded theory of ADHD and PA participation. Videotaped interviews were transcribed verbatim for thematic analysis as part of a within-case analysis to learn as much as possible about each child's PA experience (Merriam, 1998).

Research Results

There were four main sets of findings which are limited in their generalizeability because of the qualitative nature of the research. There are four manuscripts which emerged from this research project. First, we

created a new qualitative research method in sport and exercise (Harvey, Wilkinson, Pressé, Grizenko & Jooper, in press). A consecutive and concurrent scrapbook interview technique was compared with small groups of children with ADHD. The concurrent scrapbook interviewing approach was found to be a more effective interview strategy that was suggested to obtain complex, qualitative data from children with ADHD so we could hear PA stories from their own perspectives. This approach enabled (a) more vivid details and child speak, (b) an increase in depth of participant statements and meaning between and across themes, and (c) greater insight to be gained into day-to-day events and experiences which may influence PA participation.

Second, we have written a manuscript on the concurrent scrapbook interview approach with a group of 10 children with ADHD (Harvey et al., in review a). It is currently under peer-review at an international level physical education research journal. There were study findings that were similar to past research because children with ADHD: (a) demonstrated poor performance on the TGMD-2 and MABC-2 and TGMD-2 tests, (b) had pictures of friends, (c) were aware of their physical disabilities, (d) were on organized teams (i.e., cheerleading, gymnastics, etc.), (e) spoke about observational learning, and (f) viewed parent work schedule as a constraint to PA participation. There were also study findings that were different from past research because children with ADHD demonstrated: (a) performance anxiety, (b) good sporting values, (c) a superficial understanding of purpose for PA, and (d) social fragmentation.

Third, we have written a manuscript on 15 parent interviews of children with ADHD (Harvey et al., in review b). It is currently under peer-review at an international level physical activity research journal. This study is also original research that describes retrospective and current parent perspectives about their views of their children's PA experiences. The study findings demonstrate that the parents were: (a) intricately involved in the daily PA of their children, (b) aware of the movement problems of their children, (c) convinced that their children seldom organized PA, (d) unaware of their children's perceived ability to plan PA, (e) suggesting that school teachers were perceived as not aware of the implications of ADHD, (e) stating that the purpose of getting involved in PA was secondary to the activity itself (i.e., socialization, improved discipline Vs. playing hockey or practicing karate), and (f) aware of the social fragmentation issues raised by the children with ADHD.

Fourth, we are finalizing the grounded theory on ADHD and PA by collecting more interview data until the end of December, 2011 (currently sample is 23 pairs of participants). Our studies have indicated that social isolation is the major theme which emerged in our grounded theory. The essence of the PA stories emerging is a picture where children with ADHD may be excluded from school, the local community recreation center, sporting opportunities, physical education class, with social challenges surrounding some significant others (i.e., parents, teachers, coaches, peers, etc.) and substantial environmental barriers experienced (i.e., lack of transportation, limited amounts of time, etc.).

Policy Implications

The relevance of this research to enhanced sport participation in Canada is related to education programs and specific interventions focused on the inclusion of all people in sport participation at the national, provincial, and community levels. Quite frankly, at first, the study results were a bit surprising as perceptions about the involvement of many significant others (i.e., parents, teachers, etc.) seemed to reveal a multitude of reasons for sport participation. Upon reflection, the study results are not so surprising. Parents and people with disabilities are susceptible to mass messages that our education and health systems as well as sport organizations send out (i.e., sports and PA build character, develop discipline, build health, etc.). However, the children and their parents fall between enormous cracks created by society and government (i.e., overlap between ministries of sport, health, and education). I predict this unfortunate relationship will continue in the

future as our research funding and capacity to develop greater knowledge and intervention bases in this area will dry up, given the recent decision by SSHRC to be seemingly void of any sport research related to persons with disabilities as it may be deemed as health-related research (even in the context of the Sport Participation Research Initiative). Clearly, the concept of self-determination and people who are not elite athletes may well continue to be disregarded. For example, based on our current research findings, our scholarly group submitted a proposal to develop better understandings of self-determination and autonomy-supportive networks in sport participation for persons with mental health problems (MHP). We deemed sport participation as a tremendous vehicle to further our understanding of self-determination from an adult with MHP perspective by being encouraged to choose to become actively involved in their communities. We believed sport could be an answer for many people with MHP to improve their conceptualization of social functioning. In fact, at least 6 million Canadians per year experience MHP which may be positively impacted by community sport participation but this research was deemed ineligible by SSHRC and not even available for review by Sport Canada and the current initiative.

Next Steps

1. Are children with ADHD excluded from PA participation because they are being discriminated against?
2. How do children with poor movement skills gain access to PA and sport programs with no major supporting infrastructure?
3. How is the health and welfare of children with ADHD being compromised due to exclusionary PA and sport practices in schools and local communities? National and provincial funding opportunities?
4. Do the social isolation issues, related to a lack of PA and sport participation, lead children with ADHD to become involved in undesirable groups or to withdraw into their homes to become further isolated and predisposed to deeper mental health problems?
5. How will positive and cost-efficient PA programs be developed to lead to better outcome measures so children with ADHD have a better chance at becoming involved in their communities and successful, self-determining citizens?
6. How may university and national coaching programs develop sufficient expertise for physical education teachers and coaches to include persons with non-visual disabilities in their programs?

Key Stakeholders and Benefits

- Sport Canada
- Physical and Health Education – Canada
- Active Living Alliance
- National and Provincial Learning Disabilities Associations
- Provincial Ministries of Education and Health
- Sport Canada - Long Term Athlete Development (LTAD) program
- Children with Attention Deficit Disorders (CHADD)

HAYHURST, LINDSAY

University of British Columbia

Standard Research Grant 2011

Corporatizing Sport for Aboriginal Girls: Connecting Corporate Social Responsibility, the 'Girl Effect' and Aboriginal-focused Sport, Gender and Development Programs

Project Summary

This study explored how urban Aboriginal young women understand and experience their participation in a sport for development (SFD) program administered by the Vancouver Aboriginal Friendship Society Centre (VAFCS); and investigated how corporate funding and involvement in the VAFCS SFD program impacted targeted beneficiaries.

The three specific objectives of the research were:

1. To determine the factors that enable and inhibit urban Aboriginal girls' participation in SFD programs in Canada.
2. To incorporate Aboriginal girls' perspectives on corporate involvement in funding, developing and implementing urban Aboriginal SFD programming.
3. To establish what a decolonized SFD program for urban Aboriginal girls might look like.

To pursue these objectives, semi-structured, in-depth interviews were conducted with employees from corporate sponsors (n=1), the young Aboriginal women participating in VAFCS's programs (n=11), and the relevant VAFCS staff members (n=5). Photovoice activities were also carried out with seven of the eleven young women interviewed. Interviews, sharing circles and photovoice activities revealed the benefits and challenges of SFD programming.

Taken together, the main factors that facilitated the participation of Aboriginal young women included: accessing activities that enhanced confidence, leadership opportunities and community support; locating basic needs through the program; finding employment (training) opportunities and increasing engagement with female Aboriginal (sport) role models. The factors inhibiting Aboriginal girls' participation in SFD programs at VAFCS related to intersecting gender inequalities, (neo)colonialism, and poverty.

Research methods

Research Process: Interviews, Photovoice and Sharing Circles

Initially, the suitability of the proposed research questions and approaches were discussed with, and altered by, an advisory council comprised of VAFCS representatives (described in further detail below). Following ethical approval from the University of Ottawa and VAFCS, research agreements were then developed and signed by the relevant parties and the research process commenced, with fieldwork occurring in Vancouver in July and October 2012.

Throughout this research, the researcher attempted to adhere to the principles of OCAP (Ownership, Control, Access and Possession) to the best of her abilities (see Schnarch, 2004). For example, following ethical approval from the University of Ottawa, an advisory council was formed with community members that were identified by VAFCS. This advisory council was crucial for periodically reviewing research processes (e.g., identifying appropriate cultural protocols for engaging with urban Indigenous young people).² However, due

to time and financial constraints, it was challenging to adhere to OCAP on many levels and due to a variety of circumstances – a crucial issue that the researcher hopes to investigate further in collaboration with VAFCS.

Interviews

Semi-structured, in-depth interviews with employees from a corporate sponsor of the VAFCS program, the relevant NGO staff members, and with young women were conducted. Following the transcription of interviews, participants were emailed a copy of their interview for verification and feedback.

Photovoice Activities

Photovoice activities were carried out with the Aboriginal young women participants following their interviews to obtain their perspectives. Young women were asked to photograph objects that helped them convey what it is that they enjoyed/disliked/wanted to change about the SFD program at VAFCS. The sole stipulation set out by the researcher was that they could not photograph anything that would enable them, or others, to be identified. In keeping with the decolonizing and participatory nature of this study, this method was selected based on discussions with the Executive Director of VAFCS and the young women at VAFCS to gauge their interest.

Photovoice is recognized as a participatory action research method where people identify, represent, and augment their community through photography (Wang, Burris & Xiang, 1996). At the same time, it is also important to be reflexive when using this method by acknowledging the colonial tendencies of photography and its role in the colonial process as a tool for representing the 'Other' back to the colonizers (Gallagher & Kim, 2008). Photovoice involves providing each participant with a camera and taking photos. The goal is that the cameras will function as "recorders and potential catalysts for social action and change in their communities" (Lavallée, 2009, p. 30).

Sharing Circles

The young women who participated in interviews had the option of sharing their photos and drawings with other SFD program participants through a "sharing circle" (Lavallée, 2009, p. 27). Sharing circles are similar to focus groups, but are used for sharing all aspects of the individual, heart, mind, body, and spirit (Lavallée, 2009). Specifically, sharing circles are traditionally used as a "healing method" through which all participants and facilitators are viewed as equals and "information, spirituality, and emotionality are shared" (Lavallée, 2009, p. 29). The facilitator is given permission to report on the discussion, and the circle is supposed to be caring, respectful and compassionate.

In partnership with VAFCS recreation staff, sharing circles were conducted in November 2012, after interviews were completed with the young women. As a key enabler of the Because We're Girls group, the (former) VAFCS recreation supervisor disseminated information about the photo exchange and sharing circle discussion through the group's Facebook page, invited young women to participate, and scheduled the circle at a convenient time for the participants (see also Hayhurst, Giles & Radforth, under review). A total of seven young women participated in the sharing circle. To promote the exchange of ideas and foster a collaborative environment, it was agreed that the circle would not be digitally recorded and transcribed, nor would any formal notes taken. However, following the circle, it was decided that the best way to capture the exchange would be for the young women to create a group PowerPoint presentation that summarized the key issues discussed during the sharing circle.

In short, the young women decided to use the format of the PowerPoint. After much discussion, they decided to share their collaborative PowerPoint with each other, the staff at the VAFCS, and on the Facebook page, which was a closed group for the girls in the program only.

Research results³

The findings of this study demonstrated that, from the perspectives of VAFCS staff members, the benefits of sport for development (SFD) programs targeting Aboriginal young women included: increased sense of community support and development (through their involvement in sport); development of confidence, respect and leadership skills; a boost in physical fitness levels; access to basic needs through program (food and water), exposure to employment (training) opportunities and increased engagement with female Aboriginal role models. At the same time, staff noted that the challenges of these programs related to intersecting gender inequalities, (neo)colonialism, and poverty.

From the standpoint of the young Aboriginal women, the program benefits were similar to those outlined above (by staff members). Specifically, challenges for these young women related to stereotyping, encountering racism and gender inequalities in day-to-day life (e.g., finding childcare) – and (at times) in the program – creating arduous circumstances for their involvement. The young women discussed how they found it difficult to purchase healthy food and found there was little time or opportunities to incorporate their culture and traditions (for example, smudging) into ‘contemporary’ recreational activities (e.g., basketball and soccer). Despite these obstacles, the young women used the recreation program as an opportunity to resist and confront perceptions about their bodies, sporting abilities, lifestyles and Aboriginal stereotypes.

In terms of the second objective, the majority of the young women interviewed (7 out of 11) were unaware of corporate involvement/funding of SFD programs, but felt that (for the most part) corporate interest would bring much-needed attention to the resources needed for recreation and sport opportunities for the VAFCS community. Those who were aware of corporate involvement (i.e., through, for example, grant provisions, sponsorship or donations-in-kind) felt that the private sector’s creation of Aboriginal-focused sport apparel (e.g., Nike N7 products tailored to Aboriginal groups) were, at times, (mis)appropriating Aboriginal symbols such as the medicine wheel (that were placed on Aboriginal-focused apparel such as running shoes). Though VAFCS staff were grateful for the resources provided through the private sector, they were wary of the politics involved in applying for funding, the strict monitoring and evaluation mechanisms in place, the challenges invoked through the application process (although these challenges were not necessarily particular to private sector grant applications, but also government-funded applications), and the struggles involved in locating sustainable funding opportunities.

Results of the third objective – ways to create a decolonized SFD program for urban Aboriginal young women – are discussed further below in the section on ‘policy implications.’

Policy implications

Based on our findings, it is suggested that SFD initiatives that target urban Aboriginal young women in Canada need to better connect to local and global activist agendas to address the broader structural issues that continue to result in Aboriginal girls and young women being deemed as ‘in need’ of recreation and sport-focused (social) development initiatives in the first place. In other words, we suggest that an Aboriginal-led, activist approach to SFD programs and policy development for young women in Aboriginal communities that, for example, focuses on building confidence and leadership skills that are consistent with Aboriginal

approaches to leadership and that emphasize uniting young Aboriginal women in fighting the colonial and capitalistic forces that have resulted in their marginalization may result in vast changes in the SFD landscape.

This relates to the third objective of this research, and the implications for policy: what would a decolonized approach to SFD programming for Aboriginal young women might look like in practice? Relatedly, if transnational corporations are indeed the “new colonial forces,” what are the implications of, for example, the increasing private sector involvement of TNCs in funding, developing and executing SFD programs for Indigenous peoples in Canada (and abroad)? How does their involvement impact the possibilities for decolonizing SFD programs?

While many TNCs, and corporatized non-governmental organizations such as Right To Play, purport to work in “partnerships” with Indigenous peoples when it comes to SFD programs, it is often difficult to get beyond the mere rhetoric of partnerships and to address power imbalances between donors and recipients (Nicholls, Giles, & Sethna, 2010). As such, and in order to respond to the barriers that continue to hamper SFD efforts with Indigenous communities, it is important to ensure that SFD programs and policies are connected to local and global Indigenous-led (activist) movements that are grounded by self-determination, and that hold the potential to facilitate structural change (Hayhurst, Giles & Radforth, under review). Indeed, struggles for self-determination in response to the materialism of neoliberal power is a form of decolonizing SFD (see Darnell & Hayhurst, 2011). That is, decolonizing involves resistance to the ways in which neo-liberal mechanisms embedded in development ‘(re)colonize’ marginalized groups via market forces and social hierarchies [(Wainwright, 2008) as cited in Darnell & Hayhurst, 2011]. At the same time, facilitating and sustaining this resistance is easier said than done, and we must be careful to ground these analyses in particular movements and struggles in specific locales, such as urban metropolises where many Aboriginal youth in Canada now reside.

Next steps

The findings of this study lend credence to the significance of Aboriginal young women’s perspectives as active agents in SFD programs. The experiences of these young women, and those of VAFCS staff members, as they negotiate the structural constraints (e.g., poverty) and neocolonial relations in and through the SFD program explored here are important to consider for future programming, policy and practice. In broad terms, identifying, and further studying, concerns pertaining to gender inequalities, racism, and stereotyping experienced both in and outside of girl-focused Aboriginal SFD initiatives would also be a useful departure point for future research.

The bullet point list outlined below features key ideas discerned by Aboriginal young women and VAFCS to improve programs as discussed during interviews. These assertions were made in response to the question: if you could improve anything about the VAFCS program, what would you do?

- Increase support & teamwork (more time with other Aboriginal girls)
- Better childcare options (subsidized/free)
- More consistent/regular recreation programming for Aboriginal young women
- More family sport programs offered
- Increased structure
- More girl-only focused programs
- Focus on programs for specific age groups
- Provide clean water supply (not out of bathroom sink) and healthy snacks during sporting activities
- More organized outdoor activities

Alongside these substantive suggestions outlined above, more research is needed to better understand the policy implications of corporate-funded SFD programs that target Aboriginal young women in Canada, and the neoliberal, capitalistic tendencies of the funding structures that impact these same initiatives. Since Aboriginal communities and SFD programs such as the initiative for Aboriginal young women run by VAFCS often lack the resources required to provide sport, recreation (and SFD) opportunities, it seems they are left with few choices but to take offerings from the private sector, or to ‘stretch’ the funding they have from government or other sources (see Hayhurst & Giles, 2013). It may also be beneficial to examine how government-funding (or lack thereof) impacts the ways these interventions are taken up by staff and participants. However, the challenge (and irony) is that the neoliberal conditions that are necessary for the withdrawal of the welfare state, and that enable corporations to invest in SFD programs for Indigenous peoples, are the very conditions that (often) result in the difficulty that Aboriginal peoples would very likely experience in building their own programs (cf., Hayhurst, Giles & Wright, under review).

Thus, future research should examine the mechanisms through which Aboriginal people might be able to ensure they have the opportunity, and the right, to exercise self-governance when it comes to the “new” SFD programming model, where private sector involvement seems almost inevitable. It is also important to consider that, in some cases, private sector involvement may actually increase self-determination – that is, if Aboriginal groups have full ownership and control over resources use to support these programs. Specific questions to be tackled by future research may include:

1. Has the provision of funding by private sector to SFD programs with Aboriginal and marginalized communities in Canada influenced these communities’ ability to address and negotiate issues concerning self-determination and sovereignty? How might Aboriginal young women be better positioned to negotiate and contribute to, self-determination and sovereignty through SFD?
2. Has the provision of SFD through partnerships with private sector resulted in the retreat of state-funded programs that would otherwise be used to meet the goals set out by SFD initiatives (e.g., promoting gender equality, staying in school, pre-employment training, and youth leadership initiatives)?

Notes

1. Parts of this report draw on the following two manuscripts that are under review (as of October 1, 2014):
 - Hayhurst, L.M.C., Giles, A.R., & Radforth, W. (Under review). “I want to come here to prove them wrong”: Sport, Gender and Development programs for urban Indigenous young women. *Sport in Society*.
 - Hayhurst, L.M.C., Giles, A.R. & Wright, J. (Under review). The benefits and challenges of girl-focused Indigenous Sport for Development and Peace programs in Australia and Canada. In L.M.C. Hayhurst, T. Kay & M. Chawansky (Eds.), *Beyond Sport for Development and Peace: Transnational perspectives on theory, policy and practice*. London: Routledge.
2. Despite best efforts, it was often difficult to arrange for in-person meetings with all council members, therefore most communication was conducted over email.
3. If more space were permitted, this section would focus on the stories and perspectives of the VAFCS staff and young women interviewed; however, the format of this knowledge translation report does not correspond to an Indigenous-focused, community-based resource that may be useful for sharing and disseminating knowledge gleaned from this research. Thus, and in line with these limitations, the voices and quotes from those interviewed in this study are not the focus of this section.

HOLT, NICHOLAS

University of Alberta

T. McHugh

Doctoral Stipend 2009

A Sport-based Critical Hours Program for Low-Income Youth

Project Summary

This program of research addressed three important issues faced by Canadian children; the problem of low physical activity, the need to increase sport participation, and the absence of programming during the 'critical hours' after-school period (see Active Health Kids Canada, 2012 Report Card for a review). It is particularly important to offer critical hours programming for children in low-income areas to provide safe places for them to develop skills, explore interests, and learn healthy living traits. Therefore, the overall purpose of this research was to develop, implement, and evaluate a sport-based critical hours program for children living in low-income areas of Edmonton, AB.

Research Methods

We conducted a 3 phase project. Based on a participatory action research (Park, 1993) approach, the first phase of the research involved developing an understanding of the context and building relationships with community partners. In the second phase a multi-sport program involving collaborations between the school board, schools, and provincial sport organizations was created and delivered to 37 children (from grades 2 and 3) at two schools in low-income areas. Semi-structured interviews were conducted with 28 program participants (i.e., children) and 19 stakeholders (i.e., adults) to evaluate program delivery and implementation.

In the third phase a revised program (now named TRY-Sport) was created and delivered to 35 children (from grades K-3) attending two schools in low-income areas (one school from phase 2 and one 'new' school). Following the program we interviewed 14 children to obtain their views about program content and skills they learned through participating in TRY-Sport.

Research Results

Qualitative analysis of data from phase 2 revealed five themes that depicted participants' views of the program: (1) "I Play Those Games Nowhere Else," (2) "Just General Life Skills," (3) "How We Fit in the Whole Picture," (4) "It's Not Always Financial," and (5) "Plan for it Long Term." Overall, findings showed that children had positive experiences, the program filled a void in their lives, and they learned some life skills. The adults' views supported some aspects of the delivery of the program and provided direction for future program development.

We revised the program based on our findings from phase 2. First, while collaborations with provincial sport organizations were valuable partnerships, we realized the need to create a more independent program that would still address a range of movement and sport skills without relying on provincial sport organizations to send staff to run program sessions. Second, we realized a need to more specifically target life skills in a consistent manner. Third, it was important the revised program required minimal equipment because schools did not have financial resources to buy/repair equipment. Finally, we built flexibility into the program so that it could fit with the requirements and constraints of different schools.

Hence, for the third and final phase of the project, we revised the program (and renamed it TRY-Sport). It was designed to teach fundamental movement skills and life skills through the sports of soccer, volleyball, and basketball in a manner consistent with the FUNDamentals stage of the Long Term Athlete Development/Canadian Sport 4 Life model. In addition, the program focused on teaching three life skills: Leadership, teamwork, and confidence.

Analysis of the children's interviews from phase 3 showed that in terms of program content the activities children reported they enjoyed the most were based on creating optimal challenges and 'adventures' which engaged their imaginations. Children also reported learning social and life skills (e.g., teamwork, sportspersonship, listening) along with a range of fundamental movement skills. These skills seemed to be specifically learned in the program and there was some evidence of transfer of these skills to other parts of the children's lives. Finally, the need to adapt program delivery within the context of the two different schools was confirmed as a strength of the approach. Thus, this study showed the importance of engaging children's imagination to deliver the TRY-Sport program and the need for a flexible approach.

Limitations of the research included the fact that the program was delivered to a relatively small number of schools/children and therefore the results likely generalize only to schools/children in similar circumstances to those we studied. We did not evaluate the effectiveness of the program in terms of its effects on sport participation or physical activity. Further research is needed to address these issues.

Policy Implications

The research showed that it was viable to provide high-quality critical hours programs to children who attend schools in low-income areas. These children face limited options during the critical hours period and have few opportunities to engage in organized sport activities. The critical hours period is an important opportunity to influence children's sport participation and levels of physical activity.

The main implications are as follows:

- 1) It was important to develop collaborations with organizations from multiple sectors. Such collaborations supported the creation and development of programs that address participants' needs. However, relying on these collaborations for program delivery was unsustainable. We showed that 'stand-alone' programs that are relevant to stakeholders' needs could be delivered with minimal staff/equipment and will therefore likely be more sustainable in the long-term.
- 2) TRY-Sport was shown to be viable approach that was positively received and appraised by children and adult stakeholders. It made a positive difference in the children's lives. Thus, the creation of such programs should be addressed by all levels of government.
- 3) Our research showed critical hours programs should be created and delivered in a flexible rather than standardized manner. A flexible approach that has certain core principles (i.e., fundamental movement skills and select life skills) and can be adapted to the circumstances and restraints faced in particular schools is required. There is no 'one size fits all' critical hours program, but a flexible approach based on core principles appears to represent a valuable and practical way forward.
- 4) Given that the federal government is exploring ways to promote sport and physical activity, and that the Children's Fitness Tax Credit program appears to benefit middle and higher income families (Spence, J. C., Holt, N. L., Dutove, J., & Carson, V. (2010). Uptake and effectiveness of the Children's Fitness Tax Credit in Canada: The rich get richer. *BMC Public Health*, 10, 356. doi:10.1186/1471-2458-10-356) the provision of direct funding to critical hours programs represents a policy option. This issue

also applies to provincial governments that have introduced tax credit programs for children's sport/physical activity.

Next Steps

There is a need to evaluate the effectiveness and longer-term outcomes of the TRY-Sport program. A 'program manual' that includes the core principles of the TRY-Sport program will be created and disseminated. This will be useful for various organizations who wish to deliver critical hours programs.

Key Stakeholders and Benefits

- Provincial and National Sport Organizations
- Branches of provincial and federal governments responsible for sport/physical activity promotion.
- Physical and Health Education Canada
- Schools, school boards.
- Active Health Kids Canada

HORTON, SEAN

University of Windsor

Post-Doctoral Stipend 2007

Promoting Healthy Aging

Project summary

An area of increasing importance and urgency in Canadian society is the health of our senior citizens. Current research on seniors provides important evidence linking regular exercise to general health, yet according to the Canadian Community Health Survey, only a small minority of senior men and women have sufficient physical activity to maintain optimal health benefits. The problem appears to be one of action rather than one of knowledge. While 98% of people over the age of 50 are aware that physical activity is important to maintaining their health, only a minority of senior women and men get sufficient physical activity to maintain optimal health benefits. One potential barrier to seniors' participation in sport and physical activity is prevailing cultural attitudes and stereotypes, which in North America tend to be predominantly negative towards seniors. My interest in this study was in exploring attitudes towards both aging and physical activity that seniors hold in the hope of further elucidating this gap between knowledge and action. In addition, I examined seniors' notions of 'successful aging' and their role models of the aging process. While work on role models for young people is well established, very little research has examined the individuals that seniors look to as role models of their own aging.

Research methods

Forty-five adults 60 years of age and older were recruited for in-depth qualitative interviews. All of the interviews took place in a private room with one interviewer and lasted from 1-2 hours. All of the interviews were audio taped and subsequently transcribed verbatim.

An interview guide provided the basic themes to be investigated, although any new topics that emerged during the discussion were explored. While the exact sequence and wording of questions varied, questions were aimed at:

1. identifying stereotypes of aging that seniors themselves hold,
2. seniors' perceptions of ageism in society, and
3. seniors' conceptions of what it means to age successfully.

In addition, questions probed participants' exercise patterns and their attitudes towards physical activity. Related to this, participants were shown pictures of elite male and female athletes, all of whom were still active, training intensely, and over 75 years of age. Participants were told of their accomplishments and asked their opinions of both their athletic exploits and their exercise regime. Our objective was to gain further understanding and more in-depth knowledge of how participants reacted to an exercise 'role model'.

Research results

Previous researchers (i.e., Lockwood et al., 2005) have maintained that designing more effective health interventions for seniors revolves around gaining a greater understanding of how health-related exemplars (or 'role models') can motivate this population.

Our results provide support for these assertions, as they suggest that seniors often have someone in their lives who represents what it means to age successfully. Generally, this is an individual older than themselves, active, vigorous, and illustrative of the high quality of life that is possible into a very late age. Importantly, these individuals provide a direct contrast to the most negative stereotypes of aging. These individuals often served to motivate our participants to engage in various forms of exercise and physical activity. Importantly, notions of successful aging varied considerably amongst the participants. These differences related to physical health and well-being, but also social, psychological, and spiritual success, the definitions of which did not always conform to academic or biomedical descriptions of aging successfully.

While participants had distinct role models of successful aging, their reaction to the photos of elite older athletes was more equivocal, and depended in part on their current physical activity level. Those who were already active in their daily lives were more likely to see elite older athletes as an inspiration and as viable role models. Those who were less active, however, found these elite athletes less appealing as role models. While there were exceptions to this general trend (i.e., inactive seniors who found the elite senior athletes inspirational, and active seniors who did not) the general trend indicated that elite athletes may only provide inspiration for those who are already active. The implications of such findings are discussed below.

Key stakeholders and benefits

The results will be of potential value to policy makers in the development of social marketing initiatives that target specific audiences and will hopefully serve to encourage and enhance participation in sport/physical activity. More specifically, this may be relevant with the Division of Aging and Seniors within the Public Health Agency of Canada.

Seniors organizations promoting sport may also find these results of interest. For example, the International Masters Games Association, the Canadian Masters Athletic Association, along with provincial organizations (i.e., the Ontario Senior Games Association, Ontario Masters Athletics) all promote sports participation by seniors.

Finally, the Canadian Association for the Advancement of Women and Sport and Physical Activity (CAAWS) specifically targets women aged 55 and over for participation in sport and physical activity.

Policy implications

Policy implications of this work in the health and aging field include: (a) guiding the design of information for seniors about the various ways later life can be experienced and perceived; (b) informing health promotion practices for older people, and; (c) expanding the interpretation of the 'successful aging' concept to include a more expansive perspective.

Senior is obviously not a monolithic term. Participants who were asked to describe a 'typical senior' had widely varying descriptions, ranging from very positive to somewhat negative. Health promotion messages and/or interventions need to account for the complexity with which older people view successful aging and healthy living. Seniors will respond to promotional initiatives in multi-faceted ways. For example, while a number of seniors will find images of elite older athletes inspirational, others will find such images intimidating, which may turn them off exercise. Often seniors' reactions will be influenced by their own level of physical activity, and what they deem to be possible in later life.

This undoubtedly makes health interventions more challenging, as they need to account for significant diversity within the population. However, the more those messages are tailored to meet the needs of this diverse group, the more success such interventions are likely to have.

Next steps

One of the intriguing themes to emerge from the research was the variety of responses seniors provided to the notions of 'typical senior', 'successful aging' as well as their varied reactions to elite older athletes. My next phase is to recruit 3 distinct groups of seniors who vary in their levels of physical activity involvement (1-master's athletes, 2-active seniors, and 3-sedentary seniors) and to examine their role models of aging. Specifically, it will be important to investigate 3 areas

- the relevance of role models and the extent to which they vary with age and activity level.
- whether masters athletes can serve as viable role models to decrease barriers to participation in sport and physical activity.
- to what extent participants use predominantly prevention versus promotion orientations (i.e., upward or downward social comparisons) and how that may differ depending on age and activity level.

This last point is particularly relevant for those working in policy and health promotion, as understanding seniors' motivations for exercise is paramount to designing effective interventions. Preventing negative outcomes (i.e., a downward social comparison) may be equally as important/effective as pursuing positive outcomes (an upward social comparison).

HORTON, SEAN

University of Windsor

P. Weir, J. Baker, R. Dionigi

Standard Research Grant 2010

Promoting sports participation: Exploring physical activity patterns and role models of aging amongst older persons

Project Summary

Sport involvement in Canada drops precipitously as we age. Recent Canadian data indicate that participation rates are highest in young Canadians, with 54% between the ages of 15 and 19 taking part in sporting activity. By age 55, however, only 17% of individuals are engaging in sport (Statistics Canada, 2013). Participation rates in more general physical activity decline in a similar fashion. Considering the myriad of diverse benefits associated with participation in sport and physical activity, this rate of decline is of concern.

One barrier to seniors' participation in sport is prevailing cultural attitudes and stereotypes, which in North America tend to be predominantly negative towards seniors (Levy & Banaji, 2002). The prevalence of these negative stereotypes often work to prevent older adults from engaging in sport and physical activity (O'Brien Cousins, 2003). By challenging those negative stereotypes we may be able to encourage increased participation among the senior population. 'Role models' of aging have the potential to play an important part in this endeavour.

While there has been extensive research into role models for youth and young adults, there has been comparatively little attention paid to the value of role models for older adults. Levy and Banaji (2002) noted that exemplary individuals (i.e., role models) have the potential to change attitudes of group members themselves, as well as societal stereotypes of that group. Our research illustrates both the potential, but also the complexity of establishing appropriate role models for seniors' sport participation.

Research methods

The objectives of this project were to examine the importance of role models for older adults. In particular, we investigated three related areas: 1) the relevance of role models and the extent to which they vary with age and activity level, 2) whether masters athletes can serve as viable role models to decrease barriers to participation in sport and physical activity, and 3) to what extent participants use predominantly prevention versus promotion orientations (i.e., upward or downward social comparisons) and how that may differ depending on age and activity level.

Adults 60 years of age and older were recruited for in-depth qualitative interviews. All of the interviews took place in a private room with one interviewer and lasted from 1-2 hours. All interviews were audio taped and subsequently transcribed verbatim. An interview guide provided the basic themes to be investigated, although any new topics that emerged during the discussion were explored.

Questions probed participants' exercise patterns and their attitudes towards sport and physical activity. Related to this, participants were shown pictures of elite male and female athletes, all of whom were still active, training intensely, and over 75 years of age. Participants were told of their accomplishments

and asked their opinions of both their athletic exploits and their exercise regime. Our objective was to gain further understanding and more in-depth knowledge of how participants reacted to an exercise 'role model'.

Research results

Previous researchers (i.e., Lockwood et al., 2005) have maintained that designing more effective interventions for seniors revolves around gaining a greater understanding of how health-related exemplars (or 'role models') can motivate this population.

Our results suggest that seniors often have someone in their lives who represents what it means to age successfully. Generally, this is an individual older than themselves, active, vigorous, and illustrative of the high quality of life that is possible into a very late age. Importantly, these individuals provide a direct contrast to the most negative stereotypes of aging.

While participants had distinct role models of successful aging, their reaction to the photos of elite older athletes was more equivocal, and depended in part on their current physical activity level. Those who were already active in their daily lives were more likely to see elite older athletes as an inspiration and as viable role models. Those who were less active, however, found these elite athletes less appealing as role models. While there were exceptions to this general trend (i.e., inactive seniors who found the elite senior athletes inspirational, and active seniors who did not) the general trend indicated that elite athletes may only provide inspiration for those who are already active.

Of interest is the fact that masters athletes often see themselves as role models, for those their own age and/or younger generations. At the same time, when discussing the lack of sport or exercise involvement of so many in their peer group, there is a moralizing component, in which a sedentary existence is denigrated to a certain extent.

Importantly, notions of 'successful aging' varied considerably amongst all the participants. These included physical health and well-being, but also social, psychological, and spiritual success, the definitions of which did not always conform to academic or biomedical descriptions of aging successfully. Seniors are not a monolithic group, and policymakers may need varying strategies to promote sport participation in this cohort.

Policy implications

Policy implications of this work in the sport and aging field include: (a) guiding the design of information for seniors about the various ways later life can be experienced and perceived, and (b) informing sport and health promotion practices for older people, *Senior* is not a monolithic term. Sport and more general health promotion messages and/or interventions need to account for the complexity with which older people view successful aging and healthy living. Seniors will respond to promotional initiatives in multi-faceted ways. For example, while a number of seniors will find images of elite older athletes inspirational, others will find such images intimidating, which may turn them off sport. Often seniors' reactions will be influenced by their own level of physical activity, and what they deem to be possible in later life. This undoubtedly makes interventions more challenging, as they need to account for significant diversity within this particular cohort. However, the more those messages are tailored to meet the needs of this diverse group, the more success such interventions are likely to have.

Next steps

Our work on older athletes has found that participation in sport during later life can be simultaneously a sign of personal empowerment, a desperate resistance to aging, a challenge to stereotypes and a reproduction of dominant sport and aging discourses. Further research is needed to examine what sport means to older people who do not currently partake in it, despite being encouraged to by promotional messages. Our preliminary work on the opinions of older people who do not compete in sport has found mixed views on Master athletes and the value of sport.

While the biomedical focus of sport science and gerontology literatures will remain essential, much more research with a biographical and ethnographic dimension is needed in order to build a more complex picture of the role that sport participation plays in resisting and reinforcing cultural understandings of sport and aging. In this regard, listening to the voices of older people from a diverse range of contexts will be crucial.

Key stakeholders and benefits

The results will be of potential value to policy makers in the development of social marketing initiatives that target specific audiences and will hopefully serve to encourage and enhance participation in sport/physical activity. More specifically, this may be relevant with the Division of Aging and Seniors within the Public Health Agency of Canada.

Seniors organizations promoting sport may also find these results of interest. For example, the International Masters Games Association, the Canadian Masters Athletic Association, along with provincial organizations (i.e., the Ontario Senior Games Association, Ontario Masters Athletics) all promote sports participation by seniors.

Finally, the Canadian Association for the Advancement of Women and Sport and Physical Activity (CAAWS) specifically targets women aged 55 and over for participation in sport and physical activity.

JEFFERY-TOSONI, SARAH M.

York University

J. Baker, J. Fraser-Thomas

Doctoral Stipend 2010

Exploring Contemporary Issues in Canadian Youth Hockey: Experiences and Perspectives of Peewee Players and Elite Hockey Insiders

Project Summary

Hockey has a profound impact on the values, attitudes, and behaviours of Canadians (Earle, 2002; Gruneau & Whitson, 1993; Nixon, 1976). Youth hockey in Canada has been the target of much recent criticism, with attention being called to an increasingly aggressive and violent atmosphere (e.g., Ackery, et al., 2012; Loughhead & Leith, 2001; Therien, 2012). This research project aimed to gain greater understanding of two contemporary issues commonly associated with this aggression and violence: youth hockey parents, and the presence of body checking in the youth game. Interviews were conducted with forty peewee players (i.e., 11-12 years of age) over the course of a competitive season and ten elite hockey insiders (i.e., those with professional, major junior, or university level experience as either a player, coach, parent of elite player, official, or national media personality). Results indicate that elite insiders described concerning parent involvement including modelling poor and aggressive behaviour, having unrealistic expectations, putting pressure on their children to perform, over-stepping the boundaries of the coach, and living vicariously through their children. However, peewee players reported being generally satisfied with their parents' level and type of involvement. Both elite insiders and peewee players discussed the regular occurrence of negative parent behaviours at games (i.e., yelling at players and officials), and the negative impact of these behaviours. Further, peewee players reported enjoying the presence of body checking in their game, despite discussing feelings of both fear and safety on the ice, with the feelings of fear often attributed to size differences between players. Conflicting findings, recommendations and future directions are discussed.

Research Methods

Study 1

Participants included ten (8 male, 2 female) elite Canadian hockey insiders age 22-54, all of who emerged from the Canadian youth hockey system. Each participant was a current or former elite player, coach, official, parent of an elite player, or national hockey media personality. "Elite" was operationally defined as having experience at the professional (National Hockey League), major junior (Canadian Hockey League), or university level (National Collegiate Athletic Association (NCAA) Division I; USA, Canadian Interuniversity Sport (CIS); Canada); many participants had multiple roles (i.e., player, coach, parent). Each participant engaged in a 30-60 minute in-depth, semi-structured telephone interview focused on their perspectives of parent involvement in Canadian youth hockey. Each interview was audio-recorded, transcribed verbatim, and analysed using previously established guidelines (e.g., Tesch, 1990).

Study 2

Participants included 40 youth hockey players from nine competitive teams in three different hockey leagues in Southern Ontario, Canada. Participants were recruited from minor peewee (i.e., 11 years old; 11 players) and peewee teams (i.e., 12 years old; 29 players), with a mean age of 11.73 years. The competitive levels of teams ranged from BB to AAA (the highest competitive level). Each player participated in two 15-45 minute in-depth, semi-structured interviews; one at the beginning of the season, and one following the conclusion of

the season. Interview questions focused on their parents' involvement in their hockey and behaviours at their hockey games, as well as their perceptions of body checking. Data were analyzed in the same way as discussed for Study 1.

Research Results

Peewee players reported generally positive parent involvement however, the elite insiders highlighted several issues that necessitate further attention, including parents having unrealistic expectations, putting pressure on their children to perform, over-stepping the role of the coach, and living vicariously through their children. Both peewee players and elite insiders reported that although cheering and positive comments are often heard at youth hockey games, negative parent spectator behaviours are commonplace. Peewee players suggested negative comments came primarily from the "other team's parents," with officials and physical players often being the target of these negative comments. Some participants spoke of being distracted, frustrated, and angered by negative parent comments during games, suggesting that negative comments hold more weight and are more likely to be heard, internalized, and remembered by youth players. With regard to body checking, many peewee players reported liking the presence of body checking in their game, however increased injuries and rough play since its introduction were discussed at length, as well as players feeling both fear and safety on the ice, with players most often attributing their feelings of fear to size differences. Players also reported that body checking was rarely taught as a specific skill; it was either included as part of other drills, or not taught at all. Results should be interpreted with caution in that the perspectives of other parties were not taken into consideration, and social presentation bias (Nederhof, 1985) may have influenced responses.

Policy Implications

With over 570,000 youth involved in hockey in Canada, a safe and enjoyable environment is of critical importance. The extensive discussion of negative parent behaviours at Canadian youth hockey games by both elite hockey insiders and peewee players points to the need for effective parent education programs, with a particular focus on appropriate parent behaviour at games. While there has been extensive growth in such programs in recent years, it is essential that these programs are grounded in evidence-based research, and undergo rigorous evaluation to assure their effectiveness. Elite insiders suggested parent education programs be developed by a diverse team of experts, and be made standardized, while being audited/monitored. Further, they suggested programs focus on encouraging parents to have realistic expectations, keeping a healthy distance from their children's hockey, and demonstrating respect and caring at games. Further exploration of an anonymous reporting system may also be valuable in alerting league officials to particularly problematic parent issues, eventually contributing to a more positive parent culture in Canadian youth hockey. Findings also point to the importance of a clear and strict national policy on discipline.

Recommendations for policy regarding body checking among young players continue to be challenging, given conflicting and contradictory findings within and between research studies. Most participants in this study expressed enjoying the presence of body checking in their game and feeling safe on the ice, yet many also reported experiencing fear. Given that peewee players often discussed fear in the context of size differences, findings suggest that matched physical size rather than matched chronological age may be a better framework for the inclusion of body checking. Findings also highlight the importance of mandatory inclusion of an effective body checking curriculum for young players, given that many participants spoke of limited to no opportunity to correctly learn the skill of body checking.

Next Steps

This study has advanced our understanding of parent involvement, and the presence of body checking in youth hockey by taking into consideration perspectives of the youth players themselves, and allowing their collective voices to inform policy decisions. Future research should continue to examine player perspectives, and consider a large-scale case-study approach including players, parents and coaches, as well as observational data from games. Moreover, the longitudinal approach of the current study could be expanded to include more time points throughout the season, if only to validate the consistency of the responses given in the present study.

Researchers should also continue to examine minor hockey players' perceptions of body checking to further determine why players report seeing so much rough play and injury due to body checking, but also report enjoying it, and oftentimes, feeling safe on the ice. Researchers should also continue to examine the roles of parents, coaches, and officials in body checking.

Finally, future researchers may investigate gender differences in perceptions of parent involvement and body checking in Canadian youth hockey. Given that the present study had primarily male participants (i.e., 34 males, 6 females), it was difficult to discern any differences in perceptions between males and females, and future researchers should attempt to examine these lines of inquiry.

Key Stakeholders and Benefits

- Hockey Canada
- BC Hockey
- Hockey Alberta
- Saskatchewan Hockey Association
- Hockey Manitoba
- Hockey Northwestern Ontario
- Ontario Hockey Federation
- Ottawa District Hockey Association
- Hockey Québec
- Hockey New Brunswick
- Hockey PEI
- Hockey Nova Scotia
- Hockey Newfoundland and Labrador
- Hockey North

KWAN, MATTHEW

University of Toronto

Doctoral Stipend 2007

Transitioning Students' Sport and Physical Activity Participation

Project Summary

The transition from late adolescence to young adulthood represents a time of profound changes, including a period for which substantial declines in physical activity levels occur. As the late adolescent population transitions into early adulthood, a number of trajectories are possible (e.g., entry to the workplace, armed forces), but a large proportion of young adults elect to pursue a higher education at college or university. Recently, research has begun to examine the patterns of physical activity among students as they transition from high school into university. Consistently, the studies have found participation in moderate-to-vigorous physical activity being significantly higher during students' last year at high school compared to during their first-year at university. Anecdotally, substantial decreases in organized sport has been a significant contributor to those overall declines in physical activity participation; however, changes in sport participation during the transition from high school to university had not been previously examined.

Research Methods

Participants were 162 first-year students that completed a questionnaire during their spring semester at university. The questionnaire included a global (general) measure of physical activity (Godin Leisure-Time Exercise Questionnaire; Godin & Sheppard, 1985), a detailed measure of sport and physical activity behaviours (Modifiable Activity Questionnaire for Adolescents; MAQ-A; Aaron et al., 1995), and semi-structured open-ended questions to identify the perceived barriers to sport participation during students' first-year at university.

Research Results

Consistent with previous research, the study found participation in both vigorous and moderate type physical activities decreasing from high school to university. Among the participants, 63% of the students exhibited declines in their overall physical activity, 22% of the students showed an increase in their physical activity, while 15% did not change.

Average engagement in strenuous/vigorous physical activities decreased from 3.64 times/week during high school to 2.35 times/week during university.

Average engagement in moderate physical activity decreased from 3.61 times/week during high school to 3.01 times/week during university.

Together, moderate-to-vigorous physical activity declined from 7.26 times/week during high school to 5.36 times/week in first-year university.

The primary purpose of this study was to further examine the role of sport participation. The results found an overall declines in their participation in organized sports, similar to the declines in overall physical activity levels.

On average, students reported participating in a sport activity on 14 days/month during high school; entering university, students reported engaging in sports on an average of 5 days/month.

In addition decreases in the frequency of sport participation, there were decreases in the duration of those sport activities. On average, students engaged in 77 minutes/session during high school, and only 39 minutes/session at university.

Decreases in sport participation were moderately related to decreases in strenuous/vigorous type physical activity; and weak-to-moderately related to the decreases in moderate type physical activity.

With the many health and social benefits associated with being physical activity and sport, research should strive to understand populations such as first-year students and the reasons behind their decline in both their sport and physical activity levels. Students identified a number of important barriers to their sport participation during their first-year at university.

- Time constraints
- Availability of sports
- Fatigue
- Alternative social activities
- Laziness

Policy Implications

The present findings demonstrate significant linkages between declines in sport participation to the overall declines in physical activity behaviours among young adults transitioning into university. It must be recognized that the transition into early adulthood is a period for which individuals disengage from sport participation, continuing to become less active advancing with age. Given the many benefits associated regular participation in sport and physical activity, this transitional period offers a critical point to intervene

Next Steps

This study was able to provide a snapshot into the sport participation of students transitioning from high school to university. While providing some insights to first-year students' participation in sport-specific activities, there is a need for further research. First, more efforts is required to develop the capacity for sport and physical activity surveillance among the collegiate population (i.e., tracking sport participation over time). Secondly, qualitative studies may be necessary to gain a more in-depth understanding behind the contexts associated with declines in sport participation. Lastly, future research needs to continue to understand the key changes occurring during this transition period, and to develop a sustainable intervention to help students maintain their engagement in sports through this life change.

Key Stakeholders and Benefits

Broadly, the findings from this study will be informative to organizations and ministries associated with sport and health promotion (e.g., Ontario Ministry of Health Promotion and Sport, Canadian School Sport Federation). Furthermore, the findings could also be useful for physical activity educators – highlighting the needs for a greater emphasis on sustaining lifestyle sport and physical activities following high school graduation.

LEIPERT, BEVERLY

University of Western Ontario

D. Meagher-Stewart, L. Scruby, D. Wamsley, B. Clow, M. Haworth-Brockman

Doctoral Stipend 2007

Exploring Social Support, Sport Participation, and Rural Women's Health Using Photovoice

Project Summary

Research Objectives:

- To explore the roles that sport and recreation clubs play as community, social, and health places for rural women
- To understand how sport activities and meanings differ for women across diverse rural communities
- To utilize photovoice with rural women and document their perspectives about health within the context of curling

Conclusions: See Results

Research methods

Study participants used the photovoice method which includes picture taking with cameras, recording in log books, and group interviews. Participants first participated in a Research Orientation session, then took relevant photos and recorded in logbooks for two weeks, following which the log books were retrieved and the photos developed. A group interview was then conducted wherein each participant was provided with copies of her photos, and discussion of the photos ensued. Photo and interview data were analyzed by the research team and a photobook outlining the highlights of the project, using pictures and quotes from the interviews, was produced and sent to all participants and relevant sport organizations.

Women curlers were recruited from rural curling clubs in two communities in each of Ontario, Manitoba, and Nova Scotia, and from one curling club in the North West Territories (NWT). The communities had populations ranging from just under 800 to just over 4,000 residents. Each community was at least a 40 minute commute over isolated rural roads, or by plane, to the nearest urban center; five of the seven communities were more than an hour from the nearest city. Fifty-two women and girls, ranging in age from 12 to 75 years with an average age range of 50-60 years participated in the study.

Research results

Curling clubs are significant community places that are deeply valued by women and girls to:

- establish new (and maintain) longstanding friendships
- increase physical exercise
- develop and improve curling expertise;
- access opportunities for volunteering, mentoring, leadership and community engagement
- share practical, emotional, and affirmational support (e.g. team members frequently referred to as "curling family")

Curling clubs enhance social relationships, community-building and inclusivity by accepting curlers of any ability (e.g., stick curling for seniors, Little Rocks programs for children, multi-generational teams).

Curling fosters community pride and resilience (e.g. through hosting events such as bonspiels and major competitions, which sustain faith in the importance and viability of small communities).

Curling clubs are struggling to survive in some rural communities; participants expressed concern about the lack of government support (local-level support in particular).

In spite of member commitment to keeping clubs viable (primarily through volunteering), external support is needed to ensure sustainability.

The photovoice method was very effective in helping participants to reveal and discuss perspectives and experiences about the meaning and significance of curling.

Major Conclusions

Curling clubs enhance and sustain physical, mental, and social wellbeing, and resiliency in the following ways:

- Building Social Connections - through social interactions which result in diverse friendships and relationships
- Facilitating Women's Health and Resiliency - Curling provides impetus and location to be active and involved in rural settings, which typically have few opportunities for interaction and involvement, and fosters confidence and leadership skills.
- Strengthening Rural Community Life - Rural curling clubs, as hubs of rural camaraderie and identity for all, open up new and exciting possibilities for curlers and communities. Women's involvement provides valued and visible opportunities to contribute to rural community life.
- Ensuring club sustainability - Participants commit substantial resources to the sustainability and enrichment of their curling club. Although these commitments sometimes exceed women's resources, they persist and look for ways to further advance curling in their communities.
- Limitation - This research, with its small sample of women and girls in three Canadian provinces and the NWT, indicates that more research is needed throughout the country to determine effects of and supports for curling for rural people and communities.

Policy implications

This study revealed the important role curling clubs play as a service to the community. This leads to the following policy implications:

- Fund the development of curling. Curling clubs are known sites for community activity and public engagement. Thus, they deserve the same level of financial support (federal, provincial, municipal) afforded to all other sports (e.g. hockey).
- Develop and enhance coaching and support for curling, especially for girls, in schools and rinks and provide resources for curling as part of school programs
- Better acknowledge, publicize, and celebrate the achievements of girls and women curlers locally, nationally, and internationally e.g. through increased media attention to women's curling internationally (e.g. the Olympics, other world competitions), nationally (e.g. CBC, TSN), and locally (e.g. newspapers, billboards).
- Increase resources aimed at valuing and publicizing curling, similar to hockey, in small town Canada. This could be achieved through local community and school newspapers, greater support from local businesses, and the development of greater appreciation for the many contributions of the sport to personal and community wellbeing.

- Support further research on ways to enhance curling participation for youth and men as well as women in rural settings (e.g. enrich research funding from Sport Canada and SSHRC)

Next steps

- Several vital questions arose from this research:
- How does curling support rural people and communities?
- What is the significance of curling for rural community sustainability, resilience, and capacity-building?
- How can we enhance wellbeing and quality of life for individuals and communities through sport and recreation?
- How can curling be supported and enhanced within the changing contexts of rural life?
- How do changing economics, demographics, and environmental conditions affect curling and curling participation, and vice versa?
- How do sports such as curling support the wellbeing of rural women, men, and children?
- What are the needs of these groups regarding participation in sport?
- Building on this research, how can curling be enhanced in other rural communities throughout Canada?

Key stakeholders and benefits

- Canadian Curling Association; All provincial and regional curling associations; The Curling News; The World Curling Federation; Federation of Canadian Municipalities
- Ministries of Health – appreciate why and how to support sport/curling participation in rural settings.
- Rural curling clubs across Canada - would benefit from study suggestions for ways to address issues such as financial support for clubs and ways to strengthen curling participation, which would facilitate the sustainability and thriving of rural clubs.
- Media – national and local media (newspapers, television, radio) should be made more aware of these types of studies and their findings. Dr. Leipert gave over 25 interviews about this research with diverse international, national, and regional media (TV, radio, newspapers). More such profiling would raise the profile, interest, knowledge, and participation in sports in general and curling in particular.
- Sport Canada – research support that Sport Canada provides is vital and requires enrichment and sustainability so that more information can be obtained regarding the significance of curling for rural Canada and ways to enhance curling participation.

LOCKWOOD, KELLY

Brock University

G. Jackson

STANDARD RESEARCH GRANT-RT Stipend 2006

Infrastructure & Expertise: A Model to Investigate Effective Training through Long-term Athlete Development

Project Summary

A Hockey Intervention Program (HIP) was established as an innovative vehicle to evaluate the infrastructure-athlete relationship for training athletes in the sport of ice hockey. This research examined both system level and athlete level factors that influence stakeholders' decisions to access and/or integrate infrastructure into athlete development and how innovative infrastructure can best provide effective support for athlete development throughout the stages of Long Term Athlete Development (LTAD). The HIP coupled facility time (hard infrastructure) in the form of a sport specific training device (skate treadmill) emphasizing fundamental skill development and expertise (soft infrastructure) in the form of highly qualified and specialized trainers. Outcomes of the research strongly supported the value of sport specific infrastructure programs, such as HIP, which focused upon fundamental skill acquisition and development at all stages of LTAD. Simply stated, fundamental skills, such as skating, are rudimentary to the sport and the mechanics can and should be introduced, taught, trained and mastered at all levels of player development.

Research Methods

This study employed a mixed-method research design to examine the impact of the HIP according to two perspectives. First, system-level qualitative data regarding when, how and why sport infrastructure is most effective in supporting athlete development was gathered from four hockey sub-system stakeholders – parents, coaches, minor hockey leaders, and hockey talent scouts/agents. These groups have vested interests in athlete development and as such, make decisions that directly influence the type of facilities and expertise an athlete utilizes. Open-ended surveys and interviews provided data on stakeholder attitudes about the role of both hard and soft infrastructure in supporting athlete development.

Second, athlete-level quantitative data was gathered to examine how the HIP contributes to athlete development and sport specific performance. Physiological, biomechanical and on-ice performance measures were tracked pre and post a 12-week HIP training intervention per year for two years. Biomechanical measures assessed change in mechanical skill acquisition and refinement of technique, physiological measures assessed change in fitness level, and sport-specific performance measures assessed the transference of dry-land training to on-ice performance.

These data – stakeholder attitudes and performance measures – were analyzed and interpreted both independently and compiled in order to determine how stakeholders access infrastructure in ways that provide the greatest amount of support for athlete development. All data was collected on a yearly (cross-sectional) and ongoing (longitudinal over two years) basis to track system and athlete changes. This approach and timeline also facilitated the development of practical recommendations as outlined below.

Research Results

System level qualitative data was collected from 160 stakeholders; 120 parents and 40 decision makers that act on behalf of a minor hockey player. One parent for each athlete was surveyed with the exception of those 20 athletes in the “Active for Life” stage of LTAD; as adults making their own decisions, these athletes were surveyed directly. The remaining stakeholder groups included a random distribution of coaches, league administrators, scouts and agents. System level qualitative results emphasized support for three themes: the reasons for accessing sport specific infrastructure, the timing of ‘first access’ of sport specific infrastructure, and the quality or ‘perceived impact’ of facility time and expertise associated with sport specific infrastructure exposure.

Athlete level quantitative data was collected from an athlete sample of 140 hockey players; 20 athletes for each of seven stages of the LTAD model. Analysis revealed three themes consistently across all stages of LTAD: significant pre-post differences in mechanical literacy; confidence; and physical literacy gained as a result of exposure to HIP.

Combining and interpreting both qualitative and quantitative findings has provided a framework to assess the sport infrastructure-athlete connection. The greatest influence in understanding sport specific infrastructure and expertise occurred in Year 1 of the HIP when the novelty and impact of the program was high. Participants and stakeholders recognized the benefits of HIP early in an athlete’s development and the influence of an integrated approach to mechanical and physical literacy seen consistently throughout the stages of LTAD. While this study focused specifically on ice hockey, research outcomes strongly support the value of sport specific infrastructure programs which emphasize the acquisition and development of fundamental skills, such as skating mechanics, as a part of athlete development at all stages.

Policy Implications

Where enhancing sport participation is concerned, this research project has three major implications:

1) Alternative infrastructure (e.g. Skate treadmill training) is as an effective way to teach, learn and train “FUNdamentals”

The Canadian Sport Centres have called skating one of the “FUNdamentals” of LTAD in on-ice sports.¹ As noted above, most ice hockey stakeholders believe that even young children, given quality instruction, can acquire confidence and learn proper skating mechanics and technique on the skate treadmill.

2) Skate treadmill training as an alternative to scarce and expensive ice time

Several interviewees noted that ice and ice time are scarce commodities in many communities. One of the advantages of the HIP is that it is the only off-ice mode of training that allows actual skating, thus circumventing the need for ice and ice time. Additionally, skate treadmills are considerably less expensive to build and maintain than ice surfaces, and take up far less space. As a result, skate treadmill training can be an attractive solution to issues associated with access to ice.

3) The need for accreditation/certification of instructors

One of, if not the, major benefit of the HIP noted by stakeholders was the skating-related knowledge and expertise of HIP instructors – knowledge and expertise that is necessary to benefit from the training of what Hockey Canada calls the most important skill in ice hockey². Related to this, several stakeholders mentioned the range of instructor quality associated with the “plethora” of commercial hockey training resources that exist today. Many suggested a need to accredit or certify instructors so that all stakeholders can have confidence in, and benefit from, available coaching and instruction. Both the Ontario Minor Hockey Association³ and Hockey Canada⁴ emphasize the need for certification and continuing education of coaches.

Next Steps

Results of this study support the development of fundamental movement patterns or mechanics of motion beyond the Active Start and FUNdamentals stages. Mechanical literacy has the potential to significantly enhance sport performance at all stages of development if integrated appropriately. It is recommended that a model of mechanical literacy be built and superimposed on the current model of physical literacy throughout all stages of LTAD.

References

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LU, CHUNLEI

Brock University

M. McGinn, J. Sylvestre

Standard Research Grant 2006

Chinese-Canadians' Perspectives on Health & Sport Participation

Project Summary

The main objective of the project was to investigate Chinese-Canadians' perspectives about health and sport practice.

Overall, participants reported both positive and negative changes in their perspectives and practices related to health and sport participation after immigrating to Canada. They experienced both cultural conflicts and integration. Multiple factors influenced their sport participation. For many, their sport practice seemed to be influenced by Chinese cultural values. Culturally appropriate policies and programs are critical to increase sport participation for this largest visible minority group in Canada.

Research Methods

The study involved qualitative interviews and quantitative questions from 100 first-generation Chinese immigrants, aged 25 or above, residing in one of four urban centres: Toronto, Vancouver, Halifax, or St. Catharines. A mixed sampling strategy combined purposive sampling, snowball sampling in Chinese-Canadian communities, and open calls.

Research Results

Participants generally perceived sport as a component of a healthy lifestyle and a means to maintain and enhance health.

These Chinese-Canadians experienced mixed changes over the course of immigration: many reported increases in sports and physical activity (e.g., because they had more time and resources) while others reported decreases (e.g., because they lacked friends and access to preferred activities).

Factors that contributed to positive changes in sports and physical activity included: encouragement from friends, colleagues, and media; available resources (e.g., facilities, equipment, natural environment); affordable costs; easy access; enhanced awareness about health; and more spare time in comparison to China.

Common sports practices included ping pong, badminton, tennis, basketball, soccer, golf, swimming, and cycling. It seemed that ping pong was the preferred ball game, but participants regretted that it was not better respected in Canada.

Most participants recommended newcomers engage in sports and physical activities to attain benefits in terms of physical health, as well as mental health (e.g., getting out of the house, making friends, releasing stress), integration into society, and meaningful leisure. They also encouraged newcomers to take advantage of community resources (e.g., free or low cost programs, facilities) and natural environments (e.g., parks, wilderness) in Canada. Other suggestions for newcomers included trying to do fun and suitable (e.g., age or

ability appropriate) sports and physical activity, do sports and physical activity with friends or in groups, and adopt Canadian sports (e.g., skating, skiing, hunting) while maintaining Chinese preferred ones (e.g., taijiquan, ping pong).

The sources of information about sport and physical activity included (in decreasing order of importance): (a) media (e.g., magazine, books, TV, internet); (b) friends, relatives, schoolmates, and colleagues; (c) medical professionals; (d) environment such as surroundings, community centres, and general society; (e) school education; and (f) family, including parents and siblings.

There seemed to be cultural differences and conflicts between Chinese-Canadians and mainstream sports and physical activity. For example, participants tended to adopt traditional Chinese philosophies or values, such as *following nature* (顺其自然), yin-yang harmony (阴阳调和), and *golden mean* (中庸之道). Associated cultural understandings about health, sport, and the meaning of life led these individuals toward soft and mild-moderate sports (see those commonly practiced sports above), rather than strenuous, extreme, or adventurous activities (e.g., hockey, triathlon, skiing, sailing, or mountain climbing). They thought the goal of sports and physical activity should emphasize being healthy, not necessarily being strong.

Many Chinese-Canadians are not aware of sports programs and resources available in communities, or provided by government agencies or services.

Limitations:

The results are specific to Chinese-Canadians and may not generalize to other ethnocultural groups.

Sport participation was just one emphasis within a larger study; other results relate to physical activity, fitness, lifestyle, and health.

Policy Implications

Policy-makers should be aware that current sport policies are primarily based on Western cultural values (e.g., the more, the better; competitiveness) that may not be shared by all ethnocultural communities. Culturally appropriate sport participation policies should be developed to serve the diverse needs within Canada's multicultural society.

There is a need to develop sport programs and facilities (e.g., table tennis, badminton) in response to culturally appropriate sport participation. Culturally appropriate sport and recreation facilities and park design should consider growing needs among major minority groups.

Sport organizations at all government levels for sports such as badminton and table tennis should target the Chinese-Canadian community to provide a variety of opportunities for their participation in favoured sports. Other sport organizations such as boccia, bowling, curling, judo, karate, taekwondo as well as disabilities sports (e.g., goalball, wheelchair basketball) should make themselves visible and promote their sport programs in Chinese-Canadian communities because these sports are well aligned with Chinese cultural values.

Media, medical professionals, and community centres, as important factors for Chinese-Canadian sport participation, should make efforts to encourage Chinese-Canadians to participate in sports for health and

leisure. Language-specific information (e.g., online sources, brochures, pamphlets) should be available for major minority groups to promote programs and services for sport participation.

Next Steps

There are still some unanswered and new questions regarding Chinese-Canadians' sport participation:

- The present project identified some increases and some decreases in sport participation among Chinese-Canadians: who are those that reported increases or decreases in sport participation, and what factors contributed to these changes?
 - What are the differences in sport participation before and after 10 years of immigration among Chinese-Canadians? (Note: Ten years is considered a milestone in research on immigrant health.)
 - What about sport participation for second-generation Chinese-Canadians? Are second-generation Chinese-Canadians more integrated into mainstream sport participation patterns as a result of increased acculturation compared to first-generation Chinese-Canadians?
 - What are the specific barriers or challenges to Chinese-Canadians' sport participation? How can these barriers or challenges be addressed in order to increase their sport participation?
 - Does the framework developed in the present project (e.g., changes and causes of changes in sport participation after immigration, factors and sources of sport participation) apply to sport participation for other ethnocultural groups? What strategies help to increase sport participation for other top immigrant groups in Canada (e.g., Indians, Filipinos)?
 - How does sport participation help immigrants' acculturation and integration in Canada?
-

Key Stakeholders and Benefits

The following sectors, organizations, or groups may benefit from the findings:

- Sport Canada
- Ontario Ministry of Health Promotion & Sport
- Sport associations at all levels (national, provincial, municipal): boccia, bowling, curling, judo, karate, taekwondo, disability sports (goalball, wheelchair basketball).
- General media
- Medical professional groups
- Community centres

The benefits from the findings for the sectors or groups listed above will help develop more culturally appropriate sport policies and programs. Further, they can target and serve Chinese communities—the largest visible minority in Canada, especially in the two urban centres, Toronto and Vancouver. Eventually more Chinese-Canadians will be attracted by and get involved in those programs that fit their needs.

MAIR, HEATHER

University of Waterloo

Standard Research Grant 2006

Curling and Community in Rural Canada

Project Summary

The main objective of this research was to understand the role of curling clubs in rural Canadian life. It aimed to deepen and broaden our understanding of the role of leisure and sport settings in community development by studying the rural curling club. Specifically, it sought to: (1) explore the functions of these clubs as sport and community places over time; (2) examine the roles the clubs play in rural life and assess the challenges and opportunities they face; (3) observe and document the club year-round as well as community-based activities in the facility; (4) understand how these functions and meanings differ across communities and the country; (5) determine how rural curling clubs are community spaces to be understood within the broader contexts of rural and social change; (6) develop and refine new research approaches designed to best capture the complex interactions in these sport settings.

Thus far, it can be concluded that curling clubs are central places in small communities and have some combination of the following six characteristics:

- Sources of regular physical activity and life-long social connections
- Part of community identity
- Sites of pride, history, commitment and ownership
- Founded upon volunteerism
- Platforms for valued family time and activity
- A gathering place' for the community

Research Methods

Because these are small clubs and are located in very small communities, an ethnographic approach was undertaken. The researcher travelled to two clubs in each of the ten provinces (with an additional two clubs in Northern Ontario) and spent a bonspiel (generally a multi-day, multi-team tournament) weekend at the clubs. Graduate students were often present and part of the research team. Where possible, the researcher also travelled to the clubs during the summer (off-season) months to meet with key players (e.g. clubs presidents, board members, etc.) and to get a sense of what role the club plays in the community when curling is not taking place. During the winter, the research team spent entire weekends in the club, taking part in social events and aiming to have as many meaningful, informal conversations with participants as possible. In all, it can be estimated that a total of approximately 600 hours were spent in the clubs over the course of the research (average time in the clubs was about 30 hours). In addition to conversations, the research team carefully observed the behaviors and activities of the curlers. Notes from conversations and observations were recorded and were later analyzed. Photos and later video recordings were also made on site and proved to be very helpful sources of information during data analysis.

Research Results

Specifically, the findings can be grouped as answers to four main questions: Why do people try curling; why do they join (and remain club members); what challenges do the clubs face; and how are clubs attempting to meet these challenges?

It is clear the primary factor influencing an individual's decision to join a curling club is a social connection. Indeed, nearly all participants listed family, friends and co-workers as primary influences. Other reasons cited by participants included: school and youth involvement; change in family status that provoked a desire for a new activity (e.g., kids leaving home, spousal death or divorce, moving to a new community); and a desire for winter-months physical activity.

Curlers join and remain members of clubs because of the following benefits: Contributes to their health and well-being; allows them to enjoy regular physical activity at varying levels of experience and ability; provides volunteer and leadership opportunities; fosters a sense of ownership in the club; and allows for community engagement.

Challenges facing clubs relate primarily to economic issues, in particular, a lack of stable economic and volunteer burn-out. Other challenges included: the effects of a lack of diversity within the sport; a growing divide between elite/professional and amateur curling (what is referred to as competitive vs. social curlers); and the resulting tendency for sport organizations (including the Canadian Curling Association) to provide uneven support for clubs (high performance camps vs. grants for small repairs and upgrades).

Many clubs are working hard to address these challenges with innovative programs and strategies, including: maintaining affordability; identifying as a 'life-long sport' (e.g., from 'Little Rocks' for youth to Masters Curling); developing coaching and leadership capacity; responding to modern participant needs with flexible memberships and league play; promoting the social benefits of club membership; and updating the club's former image (closed, elite, white, male-dominated spaces) to socially diverse, community places.

A serious limitation was the researcher's lack of French-speaking abilities, which meant the clubs visited in Quebec were generally bilingual and not solely Francophone. Further, due to cancellations, two clubs identified for research and visited in the off-season ceased to be available for research during the winter term.

Policy Implications

In general, local curling clubs have been highlighted as sites of important physical activity with tremendous potential for social benefits. To achieve the benefits, clubs need stable and dependable investment and access to resources to help them continue to build capacity and maintain infrastructure. A successful and thriving curling club is one at the centre of both sport and community life. As such, the following should be supported and resourced: Youth Development; family-friendly infrastructure and programming; and capacity to understand and meet the needs of the modern adult participant, seniors and people with challenges and non-traditional curlers.

There are three steps sport policy makers can take to support curling clubs: 1) Support curling with the same level of financial (federal, provincial, municipal) afforded to other sports (e.g. hockey); 2) Increase exposure to curling by implementing programs in schools across Canada; and 3) Provide development funds to national or provincial curling organizations and to local clubs.

Next Steps

All research opens new doors of inquiry and this project has been no exception. One of the outcomes of this project is the development of a project focussing on the challenges of diversity and access facing urban clubs. The study focused deliberately on small communities because it was thought that the role of the club in the community may be more easily visible on a smaller scale. However, there is certainly room to look at bigger



clubs in larger communities. Other questions that stem from this project include: What is the state of urban curling clubs and what challenges are facing them; What is the image of curling in the minds of new Canadians and how can we increase its appeal; How can national sport organizations communicate more effectively with, and respond to the needs of, their grassroots members; How can those concerned with sport development and participation balance the needs of high-level/elite sport development with those of everyday Canadians; How are (particularly winter) sport clubs working to meet environmental challenges with facilities such as hockey and curling rinks?

Key Stakeholders and Benefits

Canadian Curling Association; All provincial and regional curling associations; The Curling News; The World Curling Federation; Federation of Canadian Municipalities.

MILLINGTON, BRAD

University of Toronto

Post-Doctoral Stipend 2011

Aging in the Information Age: An Ethnographic study of Video Gaming in Canadian Retirement Centres

Project Summary

This research explored the use of sport-based video games (or 'exergames') in activity programs for older persons. In recent years, games like 'Wii Bowling' for the Nintendo Wii gaming system have become popular in seniors' centres in Canada, among other countries. The objectives for this research were as follows:

1. To examine ways in which older persons engage with 'exergames' in seniors' centres.
2. To identify the perceived benefits and drawbacks of 'exergaming' according to both older persons and staff members employed at seniors' centres.
3. To inform debates in academic literature on how and why people utilize devices like the Nintendo Wii in a time of: a) proliferating technologies (i.e., the 'information age'); and b) changing demographic trends (i.e., 'population aging').
4. To communicate study results with seniors' communities (e.g., participating retirement centres).

The main conclusions arising from this research are as follows:

1. That sport-themed video games like Wii Bowling are generally viewed as beneficial, mainly in that they call to mind 'real' forms of sport participation (e.g., 'real' bowling) and are potentially conducive to social engagement and (moderate) physical activity.
2. That these same technologies also bring challenges for seniors. First, since games like Wii Bowling are 'simulation' games (i.e., bowling movements are physically acted out) they raise health and safety concerns (e.g., over falling, injury). Second, the interactive nature of these technologies is unique compared to 'older' media; challenges and at times frustration arise in developing 'new media literacies' – which is to say in learning how to make sense of on screen messages and properly handle media hardware at the same time.
3. The presence of 'exergames' in particular, and the growing presence of technologies in seniors' centres in general, creates challenges for staff members as well. This is true mainly in that staff members need to develop new media literacies of their own in order to teach/oversee gaming activities.

Research methods

The research methods employed in this study including the following:

1. Participant observation at three retirement centres employing 'exergames' as part of their activity programming in eastern Ontario. This involved recording field notes on: the settings in which exergaming took place; the types of games that were played; the number of participants involved; and the interactions between participants, between participants and gaming systems, and between participants and seniors' centre staff.
2. Semi-structured interviews with seniors (n=8) involved in 'exergaming' and with staff members (n=9) devising/overseeing such activities (a fourth seniors' centre was involved at this stage). Interviews with both groups included questions on (among other things): 'exergame' experiences; views on the

benefits and drawbacks of (for example) Wii Bowling; and the ways these activities fit in to activity/social programming in general.

3. Analyses of relevant materials produced by or pertaining to the participating seniors' centres (e.g., websites, videos, activity schedules).

Research results

As suggested above, the findings from this research can be organized into three general themes:

- **Theme 1: Social/Physical Engagement**
Physical activity in general was valued at the participating seniors' centres – e.g., for its potential health benefits and for its ability to bring residents together. Likewise, technologies in general were said to be increasingly prominent in seniors' centres, due in part to a 'new generation of seniors' that are technologically curious and that have used technologies in their past work/leisure experiences. 'Exergaming' takes place at the intersection of these trends: games like Wii Bowling were viewed as tools that can potentially promote social and physical engagement among older persons. This is likely the reason sport-based video games have grown popular in seniors' communities in recent years; one staff member said that she does not know of a seniors' centre that does not use the Wii.
- **Theme 2: Challenges for Seniors**
At the same time, using these new technologies does not come without challenges. Given that 'exergames' generally involve sport simulations (e.g., bowling activities are fully acted out), they create health and safety concerns – e.g., pertaining to falling while playing. Furthermore, though seniors may be familiar with technologies in general, the interactive nature of exergames in particular is quite unique. The need to (for example) follow directions on screen while manipulating media hardware and acting out a sporting manoeuvre all at the same time at times proved difficult. In other words, new media bring the challenge for older persons of developing 'new media literacies'.
- **Theme 3: Challenges for Staff**
Finally, staff too needed to be versed in using new technologies. This was said to be a challenge at times in that staff members sometimes lack experience using gaming systems like the Wii or in that there can be limited time for training around this issue. Some participants suggested that 'new media literacies' among staff is and will continue to be a general concern for seniors' centres as technologies become ever more prominent in retirement settings.

The main limitation related to these results is the size of the study sample. Future research might extend the methodological protocol used here to other seniors' centres/retirement communities, or might employ methods that allow for a wider pool of participants. This research also did not elicit views from seniors choosing not to engage with 'exergames' – a potential matter for future research also.

Policy implications

At a time when governments at various levels are concerned with promoting 'active aging' (e.g., see the 'Seniors Strategy' outlined in the report for the Ontario government entitled 'Living Longer, Living Well') and when organizations/institutions such as seniors' centres are devising activity programs aimed at keeping seniors active as well, this research provides initial indication that sport- and exercise-themed technologies are often viewed as tools for promoting social engagement and (moderate) physical activity.

That said, 'exergames' bring challenges as well, both in that they give rise to some of the same health/safety concerns that 'real' sports do and in that they require unique media literacies, as described above. Staff members partaking in this research were asked for their recommendations regarding technology-based

activity programming for older persons. Recommendations relevant to these challenges included: the need for patience and personalized instruction in developing media skills (or ‘literacies’) among older persons; the need to ensure that those leading activity programs have the time/training to use ‘exergames’ themselves; and the need to avoid negative stereotypes pertaining to later life (e.g., that older persons are inherently disinterested in technologies). In considering these implications, the above noted limitations to this research should be kept in mind.

Next steps

Possible next steps to follow from this research include:

- Expansion of this research to include the perspectives/experiences of a greater number of participants.
 - Research focused mainly on the views of older persons choosing not to use sport- and fitness-themed technologies.
 - Further consideration of how experiences of sport/fitness and (new) media are shaped by contextual circumstances – for example, the experiences of older persons in public vs. private retirement centres/communities.
-

Key stakeholders and benefits

Potential interested parties include:

- CARP (formerly the Canadian Association of Retired Persons)
- Active Living Coalition for Older Adults (ALCOA)
- Ontario Ministry of Tourism, Culture and Sport
- Ontario Seniors’ Secretariat

MORDEN, PETER A.

Concordia University

D. Israel

Standard Research Grant 2006

Adolescent Leisure Opportunities in a Changing Community

Project Summary

The context of leisure is especially amenable to fostering the acquisition of developmental assets and the development of. However, the issue of access to developmentally significant opportunities becomes problematized as inner-city areas are transformed by the process of gentrification, which may disrupt existing usage patterns and which alters the dynamics of supply and demand at the community level. It is not clear to what extent community “revitalization” projects are considered improvements by all members of the community, and there is scant research about the impact of the process on pre-existing residents, specifically their leisure behaviour. Additionally, youth perspectives are seldom sought by researchers examining gentrification, although appealing to such perspectives has been advocated for social research, particularly research with policy implications. The objectives of this research are to examine the extent and distribution of socioeconomic changes within a gentrifying community and to elicit the views of youth pertaining to their perceptions, experiences and use of the community leisure infrastructure.

Research Methods

The first step in this research has been to assess the degree and distribution of gentrification within the community of Little Burgundy, an approximately one square kilometre area of Montreal, Quebec. Whereas Little Burgundy has been identified as prototypical of gentrification, there has been scant attention paid to intra-community changes resulting from the gentrification process. Data from the Canadian Census were used in order to paint a socio-economic profile of the community and to examine differences as may be evident between the four census tracts of which Little Burgundy is comprised.

The second step in the research process involved semi-structured interviews conducted with over four-dozen adolescents residing in the community. Interviews covered adolescents’ perceptions of the community and their use of community leisure resources, daily time-use, leisure companions, and impressions about community change. Interviews were recorded, conducted in either English or French, and their duration ranged from 20 to 90 minutes. Data coding procedures were used to derive a wide variety of descriptive categories as well as broad themes which best captured the experiences and meaning of the community, its leisure resources, and its development over time for these adolescents.

Research Results

Initial analyses sought to examine the socio-demographic evolution of Little Burgundy over the quarter century between the 1981 and the 2006 Canadian Census. Of particular interest were changes in population, household income, linguistic make-up, and the proportion of youth under 20 residing in each of the four census tracts within Little Burgundy (67, 68, 77, and 78). Demographic changes have been previously reported but, in short, community change along a number of dimensions has not been uniformly distributed across Little Burgundy. Indeed, from the relatively similar tract profiles in 1981 there have developed two areas of marked contrast, represented by tracts 68 and 78, and another two tracts that have developed between these extremes. While tract 78 has seen an influx of wealthy residents to occupy converted and built

accommodations, tract 68 is distinctly more impoverished, ethnically and linguistically diverse, and has far greater proportion of youth in the area than in all other tracts.

Given the elevated proportion of youth and the concentration of disadvantage in tract 68, it is here that community leisure provisions would seem of greatest need and also of greatest potential benefit. The perceptions of youth from tract 68, and their use of community resources, are highlighted below.

Youth within this area were generally quite positive about Little Burgundy overall as well as the community leisure affordances: *It's a nice neighbourhood. Like, the people are nice, people are friendly, you have the basketball court right there. You can just come outside and walk around a chill. So, it's a good area.* That said, youth seldom indicated use of any of the leisure resources in Little Burgundy that were beyond tract 68 and, in certain cases, indicated that such areas were largely ignored. Of paramount importance to these youth was the park located within this tract, one of the two main parks in Little Burgundy: *It is very attractive for the youth and the community. A lot of kids go there because it is... the closest place to the centre of the community and that's where we get together—everybody coming and going because it is, like, in the middle.* Although most frequently mentioned as a favourite place, the park had its detractors, as well: *The thing is that a lot of teens go there that have a bad influence, so... It is mostly between four and five [o'clock] that they start to come... after those times... when I go the park I am scared because you never know what can happen.*

Youth from this area also mentioned their reliance upon not-for-profit organizations in order to occupy their free-time and also serve their leisure needs. Indeed, such community organizations were reported as “favorite” places by a substantial proportion of tract 68 youth. Of significance, as well, were that such community agencies provided financial support to youth with limited means in order to participate in leisure activities: *They helped me out this year to pay my fees for basketball. People are nice here; I like to spend my time with the advisors and people.*

The youth in the area certainly noted the economic changes in Little Burgundy that have left tract 68 largely unaffected—both in terms of income growth and also infrastructural improvements: *All the stuff that is coming in, all the condos and everyone is pushing people out of Burgundy... like, most of the people here, most are on welfare, so they can't really pay what they have to pay.* Some expressed concern that resources that they valued may also be affected: *They may destroy some places and build other things. Maybe they might do that. Or here [community youth-serving organization], for example, maybe they might break it down to build condos or something... I don't think they should do that because it is a place that you like to go.*

Within the context of a Little Burgundy that has seen drastic though unequally distributed economic and social change over the 25 years examined here, adolescents within the most impoverished and socially troubled area of the neighbourhood respond relatively favorably to their environment. Perhaps they have developed resilience in the face of adversity due to supportive adult networks and opportunities for the constructive use of time, and some teens in this study have alluded as much. However, with the prospect of further gentrification to come, it is essential that “low-income residents have a say in their neighbourhood's future” (Formoso, Weber & Atkins, 2010, p 399) and no constituency needs a voice more that tract 68 adolescents.

Policy Implications

The findings suggest the crucial importance played by the developed sports and leisure infrastructure for positive adolescent development. However, the findings also suggest that gentrification does not benefit all youth residents equally due to the asymmetrical patterns of economic and social development. It is, thus,

imperative to consider the needs of all residents when considering infrastructure renewal and development, program offerings, and community access to resources. It is also important to seek from youth information about the range of barriers and constraints that may limit their participation in developmentally-appropriate leisure in the community.

Next Steps

The findings reported here suggest many research questions and fruitful avenues for research engagement. Examples include an in-depth analysis of leisure policy as it pertains to youth engagement at the community level; for instance, what policies serve to encourage or inhibit youth use of community spaces and places? Similarly, systematically assessing the needs of all community adolescents with respect to leisure programs, facilities, and green spaces may help disclose differing patterns of use across segments of the youth population of relevance to leisure planning and policy. Lastly, an assessment of the degree of coordination between the private, not-for-profit, and public sectors would facilitate the equitable development and distribution of leisure goods in areas undergoing gentrification.

Key Stakeholders and Benefits

- Ministère de l'Éducation, du Loisir et du Sport du Québec
- UQTR - L'Observatoire québécois du loisir
- Sport et Loisir de l'Île de Montréal
- Association québécoise des professionnels en loisirs

O'REILLY, NORM

Syracuse University

I. Berger, T. Hernandez, M. Parent, B. Seguin

Standard Research Grant 2006

Urban Youth Engagement in Sport: Process, Access and Participation

Project Summary

This research examines participation and engagement with sport among Canadian urban youth and the resulting impact on athlete development, sport organizations, businesses, sponsors and Canadian society. Particular emphasis is put on the city of Toronto and pool and rink sports. There are four research questions:

- In what ways and how deeply are young urban Canadians engaged in sport?
- What is the engagement process?
- What capacity exists to facilitate, support and enhance engagement?
- What roles, responsibilities and benefits accrue to business, government and non-profit organizations?

Research Method

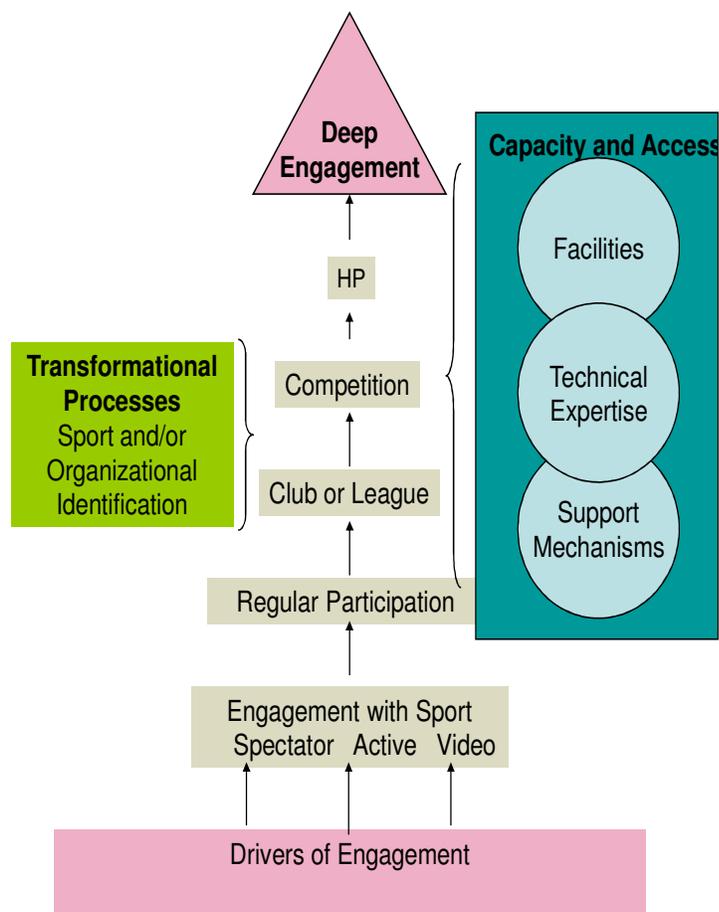
This project involved an extensive array of secondary research efforts and primary data collection protocols. Secondary research included a literature review and cohort analysis of Canadian Youth 1992 to 2005 using the Statistics Canada General Social Surveys (1992, 1998 and 2005). Approximately 10,000 respondents completed the sport and physical activity module of the GSS.

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Primary Research included two netnographies (written accounts of online cyberculture, informed by the methods of cultural anthropology) of a number of online forums to better understand and identify the important factors driving or inhibiting youth sport participation.

Water sports facilities and arenas in Toronto, Montreal and Sudbury were observed to determine the daily and regular user habits of young people. The researchers concentrated on participant ethnicity, socioeconomic level, mode of transportation to the site, family involvement, types of activities and activity level. Interviews focused on youth athletes, non-athletes and youth in schools.

Experimental intervention included three surveys and one intervention with 123 students from Grades 4 to 8 attending three public primary schools in Sudbury, as well as their parents. Students were divided into three



groups: active household, moderately active household and inactive household based on a first survey. A second survey focused on youth attitudes and behaviour in relation to physical activity. Following the second survey, the youth were randomly divided up into two groups: one group received an information kit on physical activity and the other, an information kit on diet. A third survey, identical to the second, was distributed after the intervention to determine if there had been a change in the level of engagement and attitude toward physical activity and/or in the level of family support.

The questionnaire for a large sample survey (“National Survey of Urban Canadian Youth” (n=3003)) of youth in Toronto, Vancouver and Montreal was built from all previous studies and literature.

A still ongoing spatial analysis of sport facility infrastructure in the city of Toronto will layer the location of facilities, clubs and other important infrastructure in relation to various demographic factors, as well as the results of the other methods, to provide a geospatial assessment of Greater Toronto.

Research Results

The literature review and cohort analysis revealed that urban youth sport participation was determined by six underlying factors: household context, parental education, community context, social/gender, self-perceptions, and competing behaviours. All these drivers discriminate between adolescents who do and adolescents who do not participate in sport. Notably, the cohort analysis also found that the younger generations are decreasing their participation rates at higher levels than other cohorts.

The interviews, netnography and experimental intervention allowed for deeper understanding of these factors at many levels. For example, youth interviews highlighted eight drivers of sport participation: (i) parental/siblings influence, (ii) coaches, (iii) socio-economic status of the family, (iv) technical skills, (v) geographical context, (vi) personal attributes (identity aspect) and skills (perception of strengths vs. weaknesses), (vii) friends, and (viii) school as an initiator into sport (but also an obstacle to great engagement). Notably, gender and ethnicity did not appear to be as important as previously thought (literature). The interviews further made three important comments vis-à-vis the process and strength of engagement: First, the processes of youth sport participation depend on the interaction with youth’s social surroundings. Second, the strength of youth engagement in sport is influenced by the level of competition and degree of family involvement. Third, parental involvement may be the most important of all drivers. Importantly, the interviews revealed that youth participate in sport via one of three processes: social (family, friends), institutional (school, club), identity (self-perceptions, ego, etc.). There is a difference between these processes for youth who are doing sport for recreation and those who are high-performance athletes.

The netnography highlighted that youth lacking a supportive environment are most in need of policy support vs. those in middle-class, two parent families. In addition, analysis using GSS data related to ‘household context’ reinforced this driver as a critical – if not the most important - element in adolescent sport participation. Households of intact families, with higher than average incomes, in which several household members participate in sport, define an ideal that is not available to all adolescents.

Early analysis of the large sample survey suggests that those in need of support in sport participation are those who do not match the drivers of sport participation noted earlier. Indeed, the profile of the current sport participant suggests that effort should be expanded to target and encourage adolescent females, over the age of 17, from Central Canada, living with less-educated parents, in a lower income, non-in-tact family,

with a father born in Canada and without other household members who participate, coach and attend amateur sporting events.

Policy Implications

This research brings forward a number of important recommendations to governments at the level of policy and the level of programs. The most important policy recommendation, clearly, is the need to develop policies that target the portion of the Canadian population who requires support. The middle-income family, with two parents living at home, and a decent income does not need help. Their kids are largely active. It is in fact the single mother or the widower, living in a condo, with limited income that really needs the support. Their kids are largely not active. This is emphasized by the cohort analysis which found that youth sport participation declined at a significantly higher rate for households with incomes of less than \$40,000 per year versus those households in the \$100,000 per year category. The income divide clearly indicates the need for fiscal (government) support of lower- and middle-class income earners' children's participation. Government-sponsored spaces at different recreational and competitive levels in organized sport for these families' youth may have a greater impact.

Next Steps

Two important steps remain in the analysis of all this data: geospatial analysis of facilities and further data analysis of the large sample survey.

Key Stakeholders and Benefits

There is a need for policy makers and investors in grassroots sport to target resources at participants not in 'supportive' environments and/or 'ideal' households. These organizations include governments, foundations, sponsors, COC, and NSOs.

Organizations interested in increasing participation rates should act to overcome structural challenges to capitalizing on the large potential pools of participants.

Health promoters should take note that younger generation sport participation rates are decreasing rapidly. Policy should focus on developing active lifestyles among young adults by targeting key messages at schools, teachers and school boards. There is also a need to link sport development objectives to healthy living messages targeting girls.

Finally, there is a need to consider youth culture/subcultures (i.e. social networking and competing screen interests) in program planning for adolescents.

PERRIER, MARIE-JOSÉE

Queen's University

Doctoral Stipend 2010

Getting the Ball Rolling: Sport and Leisure Time Physical Activity Promotion Among Individuals with Acquired Physical Disabilities

Project Summary

Despite the physical and psychosocial benefits on engaging in sport as a form of leisure time physical activity (LTPA), only 3% of individuals with acquired physical disabilities participate in sport. This project was composed of four studies that the theoretical and contextual factors that influence sport participation in this population. The first study investigated the possible use of a specific behaviour theory, the Health Action Process Approach, and athletic identity, the extent to which people see themselves as athletes, to explain participation in sport. The second study explored how athletic identity could be built or lost after acquiring a physical disability. The third study explored influence of the perceived self and peers had on the participation in general leisure time physical activity after acquiring a spinal cord injury. The final study explored the way peer athletes with spinal cord injury responded to individuals who did not think of disability in the same manner. As a whole, this project enables a more nuanced understanding of the theoretical and contextual determinants of sport among individuals with acquired physical disabilities. This is necessary to better inform and identify opportunities for interventions that increase sport participation among this population.

Research methods

This project used both quantitative and qualitative research methods to address the research questions. In the first study, a cohort 201 individuals with acquired physical disabilities completed questionnaires to assess the Health Action Process Approach constructs and athletic identity. Sport participation was measured two weeks later using the LTPAQ-SCI. The model was tested using a statistical technique called Structural Equation Modeling. In the second study, eleven participants from the cohort participated in semi-structured interviews, informed by identity theory. Data were analysed using a qualitative method called narrative analysis. In the third study, fourteen participants completed semi-structured life story interviews. Interview data were analysed using narrative analysis. The final study used four vignettes, based on real individuals with spinal cord injury, to elicit peer athletes with SCIs' responses to people who may not see sport or disability in a similar manner. The responses to the vignettes were analysed using a narrative analysis.

Research results

In study one, higher instrumental (i.e., perceived health benefits of sport) and affective (i.e., perceived enjoyment) outcome expectancies, lower negative outcome expectancies (i.e., perceptions of negative outcomes like pain and injury), and higher athletic identity were significant predictors of intentions to participate in sport. Greater intentions were related to more plans to participate in sport, in turn, greater planning was related to greater confidence to overcome barriers to sport. Participants with greater confidence to overcome barriers accrued more minutes of sport participation two weeks later. In study two, three distinct perspectives on athletic identity emerged: *non-athlete*, *athlete as a future self*, and the *present self as athlete*. The *non-athlete* narrative focused on physical changes in the body and experienced difficulties with disability and athletic identities that could not co-exist; more time was spent ruminating on past selves and lost possibilities for the future self as athlete. The other two narratives primarily focused on present sport behaviour and goals. Athletic identity was influenced directly by sport participation rather than loss of physical

function; among those who returned to sport, peer athletes supported identity by encouraging new comers to play and by sharing sport experiences. In study 3, perceptions of disabilities were associated with different motivations and types of physical activity. Individuals who desired to walk in the future were drawn to functional types of physical activity based on the desire to maintain the body for a cure. In contrast, individuals who saw their spinal cord injuries as a challenge to be overcome were drawn to a variety of physical activity options, including sport and outdoor activities. In study 4, peer athlete mentors responded to the least hesitant sport vignettes by drawing on mentee narratives rather than privileging their own view of disability and sport. As such, peer athlete mentors provided individualized sport recommendations rather than a generic list of options for individuals. For the most resistant vignette, peer athlete mentors expressed one of two responses: one that challenged the mentees' disability narrative and one that allowed mentees to express their own story of disability.

Policy implications

Messages and sport programs should target Health Action Process Approach constructs to increase both motivation to try sport, as well as enhance sport participation, among individuals with acquired disabilities like spinal cord injury. In particular, messages and programs for non-sport participants should focus on enhancing perceptions of the outcomes of sport, such as it being enjoyable and beneficial for health, and increasing confidence in the ability to do sport-related tasks.

Perceptions of the self as an athlete and disability are influential on people's openness to sport after a spinal cord injury. Peer athlete mentors seem to be able to provide information that aligns with these perceptions. Consultation with peer athlete mentors may help shape and form sport promotion messages that are sensitive to these different perceptions of disability.

Next steps

Test the effectiveness of sport promotion messages based on the Health Action Process Approach. Incorporate elements of the Health Action Process Approach into current sport programs and test effectiveness.

Explore current peer mentorship programs to identify peers' informational training needs and support.

Key stakeholders and benefits

- Canadian Wheelchair Sport Association
- Canadian Paralympic Committee
- Active Living Alliance

REHMAN, LAURENE

Dalhousie University

C. Shields, M. Bruner, M. Keats, S. Balish

Standard Research Grant 2011

Successful Experiences for Overweight Children in Sport (SOS)

Project Summary

A three year mixed methods research project was conducted to understand successful experiences of sport, including the possible role of body weight. A secondary goal of the study was to explore how coaches, parents and peers influence the psychosocial outcomes of youth involved in sport. Parents, coaches and youth, between the ages of 10 and 14 years were recruited from a variety of community-based recreational facilities and locations throughout Halifax Regional Municipality, Wolfville, Nova Scotia, and North Bay, Ontario.

Methodological tools for the study included: surveys for coaches, parents and children, and in-depth semi-structured interviews for coaches and parents of children involved in sport and/or after school programs. In all, 442 completed surveys (201 parents, 201 youth and 40 coaches) have been collected and 11 semi-structured parent interviews have been completed and analyzed. Of note, due to the challenge of finding and recruiting overweight athletes, results more generally reflect young athletes of normal or healthy bodyweight.

Overall, both quantitative and qualitative results converged on social processes as the main driver of positive experiences in sport. Specifically, quantitative and qualitative results suggested (1) how a child perceives how others view his/her own self-efficacy likely may actually impact his/her self-efficacy, (2) that a child's social identity is associated with positive experiences in sport, (3) that there is a lack of spontaneity in youth sport, (4) that several challenges exist facing the recruitment and training of developmentally appropriate youth sport coaches, and (5) young athletes perceive hypothetical overweight teammates as having less self-confidence, and (6) coaches perceive mastery experiences—rather than teasing—as the primary driver of decreased self-confidence among overweight athletes.

Research methods

This project consisted of a dual-phase, mixed-methods design. To understand the context of sport experiences for young athletes, **phase I** involved collecting separate survey data from three different populations: (1) children participating in sport, (2) parents/guardians of children (ages 10-14) participating in sport, and (3) coaches/leaders of sports /programs. To gain a more in-depth understanding of the sport experiences of children of varying body weights, **phase II** involved qualitative data collection via semi-structured interviews with parents and coaches recruited in Phase I of the research.

Research results

Quantitative results

My Parents Think I Can Play...Kind of: Relationships Between Rise, Self-Efficacy and Parent Other-Efficacy within Youth Sport

Relation-inferred self-efficacy (RISE) beliefs (appraisals of how another views one's competence) are thought to be important in relationships where there is a power differential (e.g., coach-athlete, parent-child). Children in this study reported high RISE (parents: $M=8.29$) and high self-efficacy ($M=8.25$) while parents reported comparatively lower other-efficacy ($M=7.83$, $p<.001$). Both parent and coach referenced RISE beliefs were

positively associated with children's self-efficacy and sport satisfaction and higher self-efficacy was associated with greater satisfaction ($p's < .001$). Regression analyses revealed RISE (parents) and RISE (coach) to be significant predictors of self-efficacy accounting for 54% and 9% of the overall variance respectively. Further, family support ($B = .39$) and parents' other-efficacy ($B = .18$) were significant predictors of RISE ($R^2_{adj} = .20$). This data provides an initial demonstration of these theorized relationships within youth sport, and also serves to highlight the importance of communicating confidence in child-athletes' abilities.

Social Identity and Positive Youth Development in Recreational Sport

The identities that youth form through their membership in sport teams (i.e., social identities) have been found to influence teammate behaviour and team performance. A regression analysis was performed separately for four positive youth development (PYD) outcomes (personal and social skills, goal setting, initiative, negative experiences) with the three dimensions of social identity entered as predictors. Regression analyses revealed that ingroup ties ($B = .14$, $B = .11$) and ingroup affect ($B = .13$, $B = .08$) were positively associated with enhanced personal and social skills ($R^2_{adj} = .31$) and goal setting ($R^2_{adj} = .16$). Further ingroup ties ($B = .11$) significantly predicted initiative ($R^2_{adj} = .17$), while cognitive centrality ($B = .08$) and ingroup affect ($B = -.20$) were associated with negative experiences ($R^2_{adj} = .08$). The findings extend previous research highlighting the benefits of social identity on teammate behaviour and team performance, demonstrating how social identity may contribute to PYD through sport.

Qualitative Findings

Is it the End of Spontaneity? Exploring Supports and Challenges to Providing Successful Experiences for Overweight Children in Sport

Although previous research has explored the reasons why children may drop-out of sport, such reasons have not been fully explored among youth still engaged in sport. In this project, parents identified both positive experiences as well as challenges to their youth's participation. Positive experiences related to the formation of team identity and learning to be a good teammate, the benefits of wider social networks, skill building, self-esteem and confidence building, and the benefits of staying active. Challenges related to the structure and lack of spontaneity and aspects of play associated with participation in structured sport/recreation. More research is needed to critically explore the pressures extending to recreational level sport for youth if the positive elements are to be maintained and experienced.

Mixed-Method Findings

Why Are Overweight Youth Underrepresented in Sport? A Mixed-Methods Inquiry of Coaches' and Peers' Perspectives

While the importance of overweight athletes' self-perceptions is well established, it is less clear how these self-perceptions are constructed. Through qualitative analysis, a narrative emerged centered on the importance of self-perceptions and mastery experiences within the context of team sport. Quantitative findings revealed that children do perceive overweight athletes differently from tall athletes, and that decreased self-confidence is an important contributor to this difference. Together, these findings support the idea that overweight youth, just like all other youth, are concerned with performance experiences, and that the interdependent nature of team sport may intensify this concern and the associated negative experiences.

Policy implications

Coach training may need to focus more on the social nature of sport and how specific social processes are associated with important outcomes, such as successful experiences in sport. This study suggests that perhaps social identity, relation-inferred self-efficacy, and genuine mastery experiences (e.g., performance failures) are variables that need to be understood.

Specifically, it may be beneficial to train coaches regarding how to ensure overweight athletes experience personal success without the child feeling targeted or ostracized in any way.

Our qualitative findings suggest that spontaneous youth sport is a meaningful form of sport but is in serious decline. Policies that promote spontaneous or low organized sport may be important. Also, the need to continue to emphasize and support principles related to fair play was identified as critical to promoting positive experiences.

Improved methods of recruiting youth coaches that possess developmentally appropriate skills may be necessary. Our qualitative findings suggest that parents, coaches and sport clubs all recognize the need for properly trained coaches but also that such coaches are lacking.

NOTE: Given that our study was correlational, causation cannot be interpreted within the results. Thus, we can only suggest possible policy implications, and cannot predict the outcome of these proposed changes with any degree of certainty. Nonetheless, our group is hosting a workshop with Sport Nova Scotia in the coming months to discuss possible applications that arise from our findings, including how these results can inform provincial sport organizations.

Next steps

The difficulties we faced in recruiting overweight athletes seemed to stem from their absence in youth sport programs. This (non) finding may suggest that overweight athletes are not participating in sporting programs as frequently as healthy weight athletes, or are dropping out at ages younger than 11-12 years old. Future research may need to investigate the role of parents of overweight youth, or focus on studying overweight athletes sports at very early ages.

To further examine if mastery experiences are the primary driver of overweight youth dropping out of sport.

More experimental and longitudinal work is needed to test those mechanisms that facilitate successful experiences in sport. These mechanisms include how social identity is related to positive youth development and how relation-inferred self-efficacy beliefs influence individual's self-efficacy.

To further examine the implicit biases that may plague overweight athletes' experiences.

To better understand what is needed to support fair play in youth sport, especially competitive sport.

To explore what factors contribute to positive youth experiences among older youth that will support life-long participation.

Key stakeholders and benefits

- Coaches
- Parents
- Athletes
- Youth sport clubs
- Coaching Canada

SAFAI, PARISSA

York University

Standard Research Grant 2006

The Social Determinants of Athletes' Health: Understanding the Relationship Between Health and High Performance Sport

Project Summary

Researchers are beginning to pay greater attention to the connections and contradictions between sport, health and healthcare. Despite the conventional wisdom that greater participation in sport and physical activity enhances health and the quality of life, more and more evidence points to the ways in which sport participation is not always healthful or beneficial. Nowhere is this more evident than for athletes participating in high performance sport. The ideology of excellence within elite sport demands the professionalized and scientifically calculated pursuit of the linear record on the world sporting stage which in turn demands, on the part of the athlete, the development of levels of disregard for the body in the pursuit of sporting excellence. Although our understanding of athletes' immersion in sport's "culture of risk" is growing – a culture that sees the unquestioned acceptance, production and reproduction of health-compromising norms (e.g., pain/injury tolerance, dangerous dieting practices or the use of performance-enhancing drugs), there has been a relative absence of research exploring other social, economic and political determinants of athletes' health and wellbeing.

There is extensive national and international research documenting the ways in which social determinants of health (SDOH) influence the health of individuals and communities and are directly related to the ways in which resources are organized and distributed among the members of a society. SDOH impact and influence participation in sport and physical activity and, in turn, are impacted and influenced by, in varying degrees, participation in sport and physical activity. This study is interested in examining the material conditions of athletes' lives, as structured by the Canadian sport system and Canadian sport policy, and the ways in which those material conditions frame and impact their health and wellbeing. In other words, the structure of the Canadian sport system, as guided by sport policy, frames the production of high performance and the health-compromising realities for sport participants.

This project investigated the social determinants of high performance athletes' health in Canada and the material conditions that contribute to or detract from athletes' health and wellbeing. The foci of the project included: 1) exploring athletes' lived experiences with their health and wellbeing in relation to the material conditions of their lives; 2) studying the incidence of compromised health among athletes, particularly those participating in representative high performance sport; 3) constructing and administering a quantitative bilingual survey questionnaire on the social determinants of athletes' health; and 4) developing a framework of the social determinants of health (SDOH) for athletes at the pan-Canadian level.

At a theoretical level, the first objective of this project was to critically analyze and bring into focus the ways in which the material conditions of being an athlete, particularly in high performance sport, influence one's health and wellbeing. The second objective was to identify the ways in which the high performance sport system and, by implication, the state structure mediates the material conditions of athletes' lives and protects or endangers their health and wellbeing. Finally, we endeavoured to situate athletes' health and wellbeing

within broader discussions of athletes' lived experiences, and contribute to a growing body of knowledge that theorizes and contextualizes the relationship between sport and health in Canada.

Research Methods

This three-year project employed both qualitative and quantitative research methods. Qualitatively, the project involved in-depth, semi-structured interviews with athletes. The qualitative portion of the project also includes some documentary research on relevant federal and provincial/territorial sport policies in relation to the material conditions of athletes' lives. For the quantitative aspect, the key activity was the development and administration of a bilingual survey questionnaire on the social determinants of athletes' health. The bilingual survey questionnaire was distributed cross-country to athletes registered with provincial and national sport organizations.

Research Results

Results from the qualitative and quantitative portions of the study indicate a number of key themes: that health is a relative concept among athletes and their parents; that many athletes rely, often heavily, on others for material support; and that there remain barriers to participation in high performance sport particularly with regard to socioeconomic status. Contextually, a number of social forces within and outside of high performance sport work to perpetuate the inaccessibility of sport for all including: the whittling of public budgets for sport/recreation facilities, programs and services; the continued focus on downstream, rather than upstream, determinants of health; and the sustained and, in fact, heightened emphasis on performance over health within the high performance sport system as Canada participated in the 2008 Beijing and 2010 Vancouver Olympic Games and prepares for other major international games (e.g., 2012 London Olympics). Limitations with this study focus predominantly on the survey questionnaire and its relative low return rate.

Policy Implications

High performance athletes comprise a unique community within Canada given the work that they do – the term 'work' is underscored here not only in reference to the actual extensive time, costs and labour athletes invest in the pursuit of sporting success. This project contributes to our understanding the social determinants of athletes' health and in understanding the ways in which the Canadian sport system, including Canadian sport policy, frames the material conditions of athletes' lives. Information on the social determinants of athletes' health has policy implications for sport participation as results indicate that: 1) socio-economic barriers continue to prevent access to full participation for some athletes, even in spite of sport-specific policies and programs to mediate the influence of income; and 2) socio-economic stresses negatively impact the health and well-being of some athletes as well as members of their support systems (i.e., their parents, spouses or families).

Next Steps

At this point in time, data continues to come in from the quantitative survey however next steps include the refinement of the survey tool and another attempt at distribution cross-country. Thematically, it will be important to map the results from high performance athletes to changes in sport programming at community levels as community sport is often the first point in the Canadian sport system in which high performance athletes are introduced to their activity, exposed to the development system and begin to interact with others (coaches, teammates, competitors).

SHANNON, CHARLENE

University of New Brunswick
Standard Research Grant 2006

Understanding Parents' Experiences in Facilitating Physically Active Leisure for their Children who are Overweight or Obese

Project Summary

Parents are key influencers of their children's leisure behaviours. They identify and create opportunities for their child's continued participation in leisure activities including sport. There are a number of factors that affect a parent's ability to support his/her child's participation in leisure activities. Given increasing concerns about childhood obesity and the importance of involving overweight/obese children in physical activity, three objectives guided this study:

- To identify the leisure behaviour patterns of overweight and obese children aged 5 to 16 and their parents;
- To explore parents' experiences with facilitating and supporting their child's participation in physically active leisure;
- To determine whether and in what ways participation in parent leisure education sessions influences parents' ability to facilitate or support their child's engagement in physically active leisure.

The study demonstrated that parents' personal limitations, lack of knowledge about available recreation and sport opportunities, and lack of awareness about their children's leisure interests make it difficult to support their child's ongoing participation in sport and physical activity. Children's negative experiences with sport and active leisure pursuits can also be a strong influence. However, leisure education can help parents by providing them with opportunities to: acquire knowledge about available recreation and sport resources; discover their children's interests; and develop strategies for overcoming various challenges in creating and supporting sport and active leisure opportunities.

Research Methods

Data collection involved parents who had a child who was overweight or obese participating in the University of New Brunswick's Paediatric Lifestyle Management Program (LMP). The Paediatric LMP was a 10-week program that provided education and guidance in the area of health, nutrition, and leisure and physical activity through 3 group sessions and 7 weekly, one-on-one individualized sessions with a paediatric nurse, dietician, and leisure educator. Twenty-five parents (19 mothers, 6 fathers) ranging in age from 32 to 49 participated in the study.

Prior to beginning the program, face-to-face, semi-structured interviews were conducted with one parent from each family that focused on 1) the leisure behaviour patterns of the parent, 2) family leisure patterns, and 3) the leisure interests, behaviours, and experiences of the child who was overweight or obese. Each parent attended between 4 and 7 individualized leisure education sessions lasting 20 to 30 minutes that focused on discussing aspects of the child's leisure (e.g., knowledge about leisure, leisure interests, and barriers to participation) and their roles as facilitators of their child's leisure. All parents were provided with a leisure interest inventory (listing 50 leisure and sport activities) to review with their child in an effort to determine previously unidentified interests. Finally, parents participated in a semi-structured, face-to-face interview the week after they had completed the program. Questions were related to changes that had been

made to their own and their children's leisure behaviors as a result of their participation in the education sessions and to their perceived value.

Research Results

At the time they began the Paediatric LMP, children were engaged primarily in sedentary pursuits. In addition, children were not always moving while participating in a sport activity (e.g., serving as the goal keeper in soccer).

Only five of the 25 parents in the study were regularly physically active (3 times per week) at the time they began the LMP. Parents who were not active indicated lack of time and lack of energy as key reasons for their sedentary lifestyles. Mothers appeared to be less active than fathers. Ten parents, all of whom were overweight or obese themselves, identified weight-related health issues (e.g., back or knee problems, joint pain, diabetes) as limiting their ability to be physically active with their child.

Parents' own limitations (e.g., time, ability to pay, energy, skill, unpredictable work schedule, geographical distance from a community and health) affected their ability to engage in active leisure with their children. Parents also had difficulty overcoming children's negative experiences in recreation and sport programs (bullying, exclusion, and inability to keep pace with the other children) that affected the child's desire to continue participation in organized activities.

All parents reported that the leisure education component of the LMP was valuable. Parents indicated that it made them more aware of their children's time use and ways to redirect from sedentary to more active (or developmentally beneficial) pursuits. They also acquired knowledge about active leisure opportunities available within their community and become more aware of activities that interested their children. Most parents reported an increased awareness of their influence on their child's leisure behaviours and the importance of being a good role model. Some parents were confident they had discovered or developed strategies for overcoming some of the barriers they had faced in engaging their child in active leisure (e.g., had developed time management skills; were now aware of free or low-cost programs). Many parents identified making greater efforts to engage in physically active family leisure. At the end of the program, most parents had either enrolled or planned to enroll their child in an active leisure recreation or sport program. In most cases, limits on the amount of screen time children were allowed each day had been put in place.

Policy Implications

Policy aimed at enhancing children's sport participation may require more consideration of parents' role as the facilitators of children's sport participation. Initiatives that provide opportunities for children to "drop-in" and receive instruction may support parents who want to gauge interest or are not able to commit to a regularly scheduled program. Partner initiatives such as KidSport are critical to reaching those children who most need sport and whose family may not have the financial means. The impact of negative first experiences on continued participation suggests the importance of including, as part of the training of recreation and sport leaders, ways of welcoming, encouraging, and supporting first-time participants. Specific efforts by youth-serving organizations to create safe and supportive environments that lessen incidences of bullying and peer harassment may be an important step to ensuring children's continued participation.

Next Steps

Future research should address the long-term impact of leisure education sessions; overweight and obese children's first-hand perceptions of their experiences with participation in sport and active recreation; and the

role of youth serving recreation and sport organizations in protecting children from exclusion and victimization and their management of bullying incidents when they occur

Key Stakeholders and Benefits

The following organizations may be interested in the findings:

- Government of New Brunswick Department of Wellness, Culture, and Sport
- Recreation New Brunswick (and other provincial recreation organization)
- Sport NB (and other provincial sport bodies)
- City of Fredericton – Community Services (Recreation Division)
- Town of Oromocto – Leisure Services and Tourism
- Village of New Maryland – Recreation and Leisure Services
- Fredericton YM-YWCA

STRACHAN, LEISHA

University of Manitoba

Post-Doctoral Stipend 2008

Examining Positive Youth Development in Elite Sport Contexts Using Photo Elicitation

Project Summary

Previous research in the field of positive youth development has highlighted the importance of extracurricular activities, such as sport, in developing healthy youth (Larson, 2000, Petitpas et al., 2005). Further, the National Research Council Institute of Medicine (NRCIM, 2002) have suggested eight setting features that are critical to the growth of positive young people: physical and psychological safety, appropriate structure, supportive relationships, opportunities to belong, positive social norms, support of efficacy and mattering, opportunities for skill building, and integration of family, school, and community efforts. The presence of these setting features has not yet been examined extensively within youth sport contexts (Perkins & Noam, 2007). Recent research with elite youth sport coaches found the presence and delivery of the setting features within elite sport contexts (Strachan, Côté, & Deakin, 2011). With increasing elite sport participation by children and youth, it is critical that elite sport contexts be explored through examining athlete perceptions to ensure the best possible program delivery. Results point to the 7th setting feature, opportunities for skill building, as a meaningful feature of elite sport contexts. Other highlighted features include physical safety as well as appropriate structure.

Research Methods

Twelve athletes (Mage = 11) were recruited from swimming and gymnastics. These athletes were all invested in their respective sports spending at least 10 hours per week in practice. A photo elicitation methodology was used; this methodology involves individuals taking photographs within a specific context in order to explore the environment in greater depth (Morrow, 2001; Power, 2003). Each athlete participated in three or four separate sessions which have proved to be appropriate with children and youth (Cook & Hess, 2007). The sessions include an explanation of the methodology, taking pictures during a practice, selecting pictures, and speaking to the researcher about their experiences by explaining the photographs taken. The final session was audio recorded and transcribed verbatim for analysis.

Research Results

Athletes described features related to Opportunities for Skill Building as the most meaningful part of their elite sport experience. Interestingly, skill building encompassed a broad range of activities: skill development, cognitive development, and psychological skills development.

Physical Safety and Appropriate Structure were also important to these athletes as they wanted to feel safe in their sport experience and have an understanding that proper progressions were being taught and delivered.

Positive Social Norms and Support of Efficacy and Mattering were often mentioned by these athletes as they understood that they were developing positive values in sport. In addition, recognition was mentioned by several athletes as important in their experience and this was extremely valued.

The support and encouragement of friends as well as having supportive coaches were not mentioned quite as much but were also very valued by these athletes.

Opportunities to Belong and Integration of Family, School, and Community were the least reported by these athletes.

Policy Implications

The first goal of the Canada-Manitoba Sport Development document is to increase the level and range of participation in sport within Manitoba's remote, isolated and inner urban communities, and especially among Manitoba's Aboriginal and new immigrant populations. While special populations have not yet been addressed through this research, results can have an impact on the level and range of sport participation among youth.

Participation in elite youth sport brings about many challenges, particularly with issues of dropout and burnout. A greater focus on the tenets of positive youth development in this context can help to encourage talented athletes to persist in sport while gaining positive experiences within a more deliberate context.

Next Steps

The next steps of this research include examining more of the context in elite youth sport, particularly parents/guardians and their contribution to positive development. More links are needed examining family structure (i.e., siblings), school involvement, and community links within elite youth sport. Further, more diverse populations are important to consider through this research including Aboriginal and New Immigrant youth, athletes with physical disability, and athletes with intellectual disability.

Key Stakeholders and Benefits

The key stakeholders in this research include:

- The Coaching Association of Canada
- Sport Canada – LTAD
- Swimming Canada/Swim Manitoba
- Gymnastics Canada/Manitoba Gymnastics Association

SULLIVAN, PHILIP

Brock University

N. Holt, G. Bloom

Standard Research Grant 2007

The Effect of Coaching in Youth Sport in Canada

Project Summary

This project was designed to examine the impact of coaching on athlete outcomes in youth sport. The research focused on both the perceptions and behaviors of the coach, and assessed sporting and non-sporting (i.e., positive youth development) outcomes of the athletes. To maximize the applicability of results to the Canadian sporting culture, efforts were made to collect data within the three different youth sport streams determined by the Coaching Association of Canada – competitive, community and instructional sports.

Research Methods

A sample of 352 athletes and their coaches (N = 47) participated in this study. Coaches completed the Coaching Efficacy Scale (CES) and Revised Leadership Scale for Sports (RLSS). Athletes completed the Coaching Behavior Scale for Sports (CBS-S) and Youth Experiences Survey (YES). The CES measures confidence coaches have in four interrelated areas – motivation, strategy, teaching technique, and character building. The RLSS measures the frequency of four different coaching behaviors – training and instruction, positive feedback, social support, and situational consideration; and two different decision making styles – autocratic and democratic.

All scales are answered on via close ended Likert-type questions. The CES and RLSS have been supported with respect to their validity, reliability, and psychometric properties. One of the objectives of the research was to validate the YES and CBS-S.

Research Results

The YES and CBS-S were both analyzed for psychometric properties (e.g., internal reliability, factor structure). In both cases and reduced version of the scale was validated.

It was found that there is a significant relationship between coaches self perceptions (i.e., coaching efficacy) and their behaviors (e.g., training and instruction and positive feedback). Further, there were significant relationships between coaches efficacy and their perceptions of their own behavior and athlete assessments of coaching behavior. Finally, preliminary analyses showed that positive youth development might be an outcome of coaching in youth sport.

Policy Implications

These findings may be applicable to coaching education material that is distributed by the National Coaching Certification Program.

Key Stakeholders and Benefits

- Coaching Association of Canada
- National Coaching Certification Program

TAKS, MARIJKE

University of Windsor

L. Misener, L. Chalip, B.C. Green

Standard Research Grant 2010

Leveraging Sport Events for Sport Development

Project Summary

It is often claimed that sport events can stimulate interest and consequent participation in sport. The data on this matter are inconclusive. It is known, however, that sport participation is not being raised merely by the fact that an event is being hosted, but rather on the ways that an event is used to render desired effects (i.e., event leveraging). The purpose of this research project was to examine how medium sized sport events can be used to stimulate sport participation in host communities. Using a three-phased study, findings show that: (a) sport events are unlikely in-and-of themselves to generate increases in sport participation; (b) there are nonetheless opportunities to use events to generate sport participation if the requisite strategies and tactics are put into place; (c) sport organizations at the local level lack the necessary skills and resources to take advantage of a locally hosted event to build participation in their sport; (d) local sport organizations have a set of standard operating procedures for recruitment and retention which tend to support a status quo; and (e) an event can catalyze the interest of local sport organization administrators in the possibilities for a better effort at building their sport.

Research methods

In phase one (the evaluation phase), leveraging tactics and outcomes were examined for two past events: the 2005 Pan-American Junior Athletic Championships (Windsor, ON), and the 2005 Canadian National Figure Skating Championships (London, ON). Document and media-analysis, as well as retrospective interviews (n=21 and n=14 respectively) with key stakeholders (i.e., local organizing committee, local sport organization, facility managers, athletes) were conducted six years after the events.

For phase two (the planning phase), a task force was created to consider the challenges and prospects for leveraging sport events for sport development. The panel of experts was comprised of 12 practitioners and academics from a variety of organizations that would (or could) be involved in (and benefit from) leveraging sport events for participation (e.g., sports policy, event management, facility management, coaching, tourism, marketing, education, and community development). Brainstorming and nominal group techniques were used to collect the data, which resulted in a model for leveraging sport events to build sport participation.

For phase 3 (the implementation phase), an international youth sport event (2013 International Children's Games) was selected as the event to be leveraged, and athletics and gymnastics were selected as the two sports to be stimulated. The first step consisted of a one-day workshop six months prior to the event to scope, discuss and develop an action plan for leveraging. The next steps evaluated processes and outcomes through: participant observation and casual meetings during the event, a post-event workshop one month after the event, and reflective interviews (n=9) one year after the event.

Research results

Evaluation phase (Phase 1):

Key stakeholders of sport events support the idea that increasing sport participation through events is a worthwhile endeavour. There was an overarching assumption that the events in and of themselves, through the process of “creating awareness”, are sufficient to engender participation outcomes. However, participation effects in the absence of leveraging are negligible. We found no evidence for defined strategic intentions or plans to leverage events to foster sport participation; the leverage occurrences were more happenstance. In the case of the 2005 Pan American Junior Athletic Championships, a coaching clinic and a new facility were two intended tactics expected to intentionally trigger increases in sport participation. The 2005 Canadian National Figure Skating Championships implemented an educational program through schools and organized demonstrations during event breaks. Flyers were handed out on site for both events. No partnerships were activated to serve sport development. Despite the general belief that it would be a good idea to increase the number of new participants, the focus for any sport development efforts or ideas was clearly on individuals already in the system rather than any attempts to get new participants into the sport.

Planning phase (Phase 2):

The model for event leveraging consists of three elements: (a) the context (culture; opinions and attitudes; systems and structures), (b) three types of organizations with a stake in the leveraging process (event, sport, and non-sport entities), and (c) resources needed (human, physical, and knowledge). The centre of the model reflects the core of the leveraging effort: the sport participation goals. Each of the factors in the model can enhance or hinder leveraging strategies and tactics. Sport events can be leveraged to enhance sport participation if the necessary alliances among sport organizations, event organizers and non-sport stakeholders are forged to integrate each event into the marketing mix of sport organizations. Potential barriers need to be addressed (e.g., the lack of available capacity to absorb new participants; crowding out of local participation by the event; the disincentives resulting from elite performances that seem outside the reach of aspiring participants).

Implementation phase (Phase 3):

The sport communities (i.e., athletics and gymnastics) were unable to implement the solid ideas and initiatives that had been developed in the 6 months leading up to the event. Only some isolated tactics were implemented (e.g., handing out posters and flyers in schools prior to the event; flyers during the events). Challenges to implement the developed strategies and tactics seem to be a lack of human resources (in the case of athletics), and a lack of “community” to enable collaborative actions among a variety of clubs (in the case of gymnastics). One year after the event, stakeholders revealed some evidence of an “inspiration effect”; for those already involved in the sport, competing in an international context at this level and age was very attractive and rather unique. However, there is no evidence of increased participation in either sport. Without evidence of tangible outcomes, the key stakeholders displayed no efforts to sustain any positive impacts. As was the case in phase 1, they feel that lessons can be learned from the leveraging unsuccessful effort. However, what is being done to retain and capitalize on what was learned is unclear at this stage.

Policy implications

Formulation and implementation of strategies and tactics, and measurements need to be put into place well in advance of an event. This will enable the efficacy of strategies and tactics to be benchmarked and assessed. This responsibility needs to be assigned to a clearly identified entity. These requirements can be added to the policies for hosting sport events, be it at the federal level (e.g., Federal Policy for hosting International Sport Events), the provincial or the local levels (for smaller sized events).

Next steps

The findings of this study suggest that sport organizations' capacity to market themselves to participants is a prerequisite for effective leverage of events to build participation, and that capacity building must take place well in advance of an event so that the necessary skills and resources are adequately established. Future research should examine how local sport organizations can build that capacity, and to what degree adding an event into a well-developed marketing strategy will benefit local sport organizations in building participation in their sport.

Key stakeholders and benefits

Club administrators can use events to motivate, to reconsider and possibly further develop their capacity to build their sport. This study informs sport policymakers and sport event organizers about the means to build sport participation by using medium sized sport events to stimulate participation.

Further Readings

- Taks, M., Misener, L., Chalip, L., & Green B. C. (2013). Leveraging sport events for participation. *Canadian Journal for Social Research* (Recent research on sport in Canada), 3(1), 12-23.
- Taks, M., Misener, L., Chalip, L., & Green B. C. (2013). Comment utiliser les événements sportifs comme levier pour encourager la participation. *Revue Canadienne de Recherche Sociale* (Recherches récentes sur le sport au Canada), 3(1), 62-74.
- Taks, M., Green, B.C., Misener, L., & Chalip, L. (2014). Evaluating sport development outcomes: The case of a medium sized international sport event. *European Sport Management Quarterly*, 14(3); 213-237. DOI: 10.1080/16184742.2014.882370
- Green, B.C., Chalip, L., Taks, M., & Misener, L. (In revision). Creating Sport Participation From Sport Events: Making It Happen. *Leisure Studies*.
- Misener, L., Taks, M., Chalip, L., & Green, C. (Under review). The elusive 'trickle down effect' of sport events: Assumptions and missed opportunities. *Managing Leisure*.

TAMIM, HALA

York University

C. Ardern, P. Ritvo, P. Weir, H. Baker

Standard Research Grant 2008

Tai Chi (TC) for Older Adults: Improving Physical and Psychological Health and Identifying and Overcoming Cultural/Ethnic Barriers to Participation

Project Summary

Tai Chi (TC), a traditional Chinese exercise, has been shown to have several health benefits. In general, TC is a widely practiced, well received exercise in large populations in China. Such generally positive attitudes towards the exercise result from a long history of practice in Chinese culture. The current literature has identified some factors affecting its use by older Chinese adults but it is still unclear, however, whether these factors are applicable to or consistent across the different ethnicities that characterize Ontario's population. The objectives of the study were to examine and assess the factors influencing multi-ethnic Canadian older adults living in low income neighborhoods in terms of enrolment and adherence to a four months locally offered TC program, and to examine the program's effects on cardio-respiratory fitness and mental health. Results of this study showed that women were more socially motivated to both recruit and participate, whereas men were more focused on initiating physical activity to obtain the subsequent health benefits. The TC program was well attended by the participants who had multiple chronic conditions ranging from metabolic to orthopedic. Even within a group of participants with a range of functional abilities, participants were able to fully engage in and maintain TC practice for the duration of the study. Adherence to the program did not differ between Canadians of Chinese and non-Chinese origin. Furthermore, results of the present study showed that the program was effective in improving physical and mental health.

Research Methods

The study targeted community dwelling older adults in two locations in the Greater Toronto Area of Ontario, Canada; Jane and Finch as well as Dundas and Spadina. These two locations were chosen for their diverse ethnic make-up and their low socio economic status (SES). Eligibility for participation was limited to being 50 years of age and older, residing in the above-mentioned locations and with the medical capability to be involved in an exercise program. Two focus groups (male/female) were initially conducted to identify barriers and promoters to participation in the community based TC program. Information obtained from participants of these focus groups helped identify poster placement in strategic areas in the neighborhoods to actively recruit participants. Participants were exposed to 16 consecutive weeks of TC offered free of charge. The TC program consisted of an average of 6 TC classes given throughout the week where participants were advised to attend two classes per week. Classes took place at a Toronto Community Housing building and local community centers in each area. A professional TC master facilitated the classes. Each class was 60 minutes long and consisted of 15 minutes of Qigong followed by 45 minutes of Yang style TC. Attendance of study participants was collected throughout study period. Socio-demographic, lifestyle and health related characteristics were collected at baseline. Measures of physical, mental and perceived stress were collected at baseline and at end of study and were compared to assess effectiveness of TC program.

Research Results

A total of 210 participants were recruited for the present study. The mean age at enrolment was 68 and the majority of the participants (80%) were females. The majority had less than primary education (45%) and had

an annual income less than \$14,000 (64%). The country of origin of participants included China (35%), South America (26%), Europe (16%), Caribbean (6%), Canada (6%), South Asia (5%) and other. The proportion of participants who reported having arthritis, hypertension, diabetes and depression were 48.6%, 50%, 21.4%, 14.8%, respectively. A total of 18 participants (9%) were using walking provision devices at baseline.

Over the duration of the program, 34% attended < 8 TC classes, 21% attended 8-16 TC classes, 15% attended 16-24 TC classes and 31% attended > 24 TC classes. The average weekly attendance for the overall sample was 1 session per week, with no difference observed in the overall average weekly attendance for the Chinese versus non-Chinese groups. Of the 210 overall sample recruited, 27% did not complete the study and hence were lost to follow-up. Reasons for loss to follow-up included health reasons not related to the TC program, leaving the country to visit family, not being available for post TC program data collection and unknown reasons. Not completing the study was not related to any of the socio-demographic characteristics. Results showed that the 16 week program was effective at improving strength, endurance and flexibility as well as mental health and stress perception. These findings are of particular importance since improvements were in the context of real world settings based within lower income communities.

The limitations of the study relate to self-reporting bias and the uncontrolled intervention design such as changes in daily and seasonal physical activities as well as changes in dietary patterns and lifestyle factors.

Policy Implications

It has been assumed that individuals are more likely to adopt and maintain physically active lifestyles if they are able to perform activities that are culturally affiliated with their own. Research concerning TC in Canada is still in its infancy with respect to its potential uptake. For example, some individuals may view the activity as too "foreign". Such ethno-cultural barriers might seriously reduce TC acceptance. Yet, it is apparent from our study that TC is an optimal mode of physical activity for a culturally diverse group of older adults. Furthermore, results of the present study demonstrate that even with an average weekly attendance of one session of TC per week, significant physical, mental and stress changes can occur. This has significant implications for public health strategies targeting physical inactivity among older adults, as even a modest level of TC activity may contribute to meaningful improvements in health, and can be performed by ambulatory participants at any level of skill. It is an activity that can be incorporated into community programs, senior center activities or senior nursing homes to promote the wellbeing of community dwelling elders. The requirements of TC do not involve expensive equipment and are limited to a good TC master and an available space where the exercise can take place. This relatively inexpensive program could be widely implemented across our aging population and has the potential for considerable public health improvement and potential cost savings to the health care system.

Next Steps

Based on the data collected, the team is currently working on addressing the following research questions; 1) assessing the barriers and promoters for sustained participation in TC, 2) assessing if physical and mental health improvements due to the TC program is different for older adults of Chinese versus non-Chinese origin.

Potential important future studies would include; 1) assessing sustainability of participation in TC exercise over longer duration (greater than 4 months), 2) assessing cost effectiveness of TC programs.

Key Stakeholders and Benefits

- Coalition for Active Living Canada
- Active Living Coalition for Older Adults
- Public Health Agency of Canada
- Health Canada, Healthy Living
- Seniors Association Canada

The benefits are to encourage participation in a safe, low impact, physical activity.

TAMMINEN, KATHERINE

University of Alberta

Doctorate 2008

Understanding and Coping Among Adolescent Athletes

Project Summary

Research Objectives: Participation in youth sport is associated with a variety of positive developmental outcomes among adolescents, however studies of recreational and competitive youth sport contexts have revealed stressors which include not having fun, an overemphasis on winning, conflicts with coaches or opponents, or parental pressures to succeed (Anshel & Delaney, 2001; Goyen & Anshel, 1998; Sirard, Pfeiffer, & Pate, 2006). Researchers speculate that failing to cope with these stressors may lead to burnout and eventually sport withdrawal (Petlichkoff, 1992; Smith, 1986). Thus, by understanding how youth deal with potential stressors, coping may play an important role in improving athletes' experiences in sport and maintaining sport participation rates.

Conclusions: Results from study 1 suggest that the development of coping among adolescent athletes is malleable and is influenced by the athlete's social network and prior coping experiences. Social networks including athletes' parents, coaches, and teammates should be developed by focusing on communication and positive social interactions. By developing social networks and coping skills, youth may maintain sport participation throughout adolescence.

Results from study 2 suggest that learning to cope was an experiential process for adolescent athletes, implying that athletes must gain personal experience in dealing with stressors in order to learn how to cope. Athletes learned about coping by being exposed to multiple situations in their sport and by reflecting on their stressors and coping efforts. Parents and coaches helped athletes learn to cope by creating a trusting environment which facilitated the learning process, and by using specific strategies for assisting athletes in learning about coping. Strategies included questioning and reminding, sharing experiences, providing perspective, and dosing stress experiences to help athletes learn to cope. Parents also initiated informal conversations about coping, while coaches used direct instruction and created opportunities to learn about coping

The results of this research have been published in peer-reviewed journals:

- Tamminen, K. A., & Holt, N. L. (in press). A grounded theory of adolescent athletes' learning to cope and the role of parents and coaches. *Psychology of Sport and Exercise*. doi: 10.1016/j.psychsport.2011.07.006
- Tamminen, K.A., & Holt, N. L. (2010). A meta-study of qualitative research examining stressor appraisals and coping among adolescents in sport. *Journal of Sports Sciences*, 28, 1563-1580. doi: 10.1080/02640414.2010.512642

Research Methods

Study 1: The purpose of this study was to create an integrated conceptual perspective and to establish 'what is known' about youth sport stress and coping. A qualitative meta-study was conducted of youth sport coping research from 1970-2009. Twelve sport psychology journals were manually searched and six online databases were searched electronically. Weekly automatic database searches were also conducted. Based on inclusion

criteria, 17 articles and 3 dissertations were retained. Analyses produced the following themes: contextual and dynamic stressor appraisals, dynamic coping efforts, development of coping, and social networks as assets and liabilities.

Study 2: The purpose of this study was to develop a grounded theory of adolescent athletes' process of learning to cope and the role of parents and coaches within this process. The key research question was "how do coaches and parents influence the development of coping in sport?" Interviews were conducted with 17 athletes (8 females, 9 males, *M* age = 15.6 years) 10 parents (8 mothers, 2 fathers), and 7 male coaches. Interviews were analysed using grounded theory methodology (Corbin & Strauss, 2008). Analyses produced the main category of learning about coping, as well as three categories concerning the role of parents and coaches: creating context, strategies for assistance, and balancing acts. Learning about coping was an experiential process for adolescent athletes, suggesting that athletes must gain personal experience in dealing with stressors in order to learn how to cope.

Research Results

1. Athletes' social networks are complex and intricately tied to the appraisal of stressors and the ways in which they cope with stressors. Parents and coaches may serve as assets to helping athletes learn to cope with stressors in sport, however they may also be liabilities in learning about coping (i.e., athletes may perceive parents and coaches as stressors and not as sources of support). Positive interactions with coaches and parents may improve or facilitate athletes' coping.
2. Most previous studies have concluded with applied implications that involve helping adolescent athletes build a repertoire of coping resources and/or selecting the coping strategies that are 'tried and true.' The current research *also* highlights the importance of delivering interventions that focus on athletes' social networks which were found to be both assets and liabilities. Thus, interventions that also target coaches, parents, and even team/peer interactions may be useful for improving adolescents' coping in sport. This issue does not appear to have been widely considered in the literature to date.
3. Learning about coping occurred through an experiential process where athletes needed direct exposure to stressors to try out coping strategies (see Figure 1). This was facilitated by exposure to different situations, and by having appropriate social support networks in place to assist athletes' coping. Thus, being exposed to various situations in sport with supportive parents and coaches surrounding the athlete may contribute to the development of coping strategies. The current research confirms the idea that athletes benefit from instruction.
4. Regarding coping; however these findings emphasize the importance of providing athletes with opportunities to try out coping strategies in competitive situations.
5. Parents and coaches reported that they attempted to create a context for learning about coping by listening and by monitoring their own reactions when discussing stressors with their child. The context created by parents appeared to influence the extent to which athletes sought assistance from their parents when facing stressors. Family contexts appear to influence the development of adaptive and maladaptive coping among adolescents (Grant et al., 2006; Kliewer, et al., 1996; Lafferty & Dorrell, 2006), and researchers have suggested that coping intervention programs need to address parenting and communication within family environments (e.g., Blount, Davis, Powers, & Roberts, 1991); the current findings support this proposition.

Policy Implications

Exposure to multiple experiences in sport should be supported by information and education regarding the importance of social support in athletes' coping. Parents and coaches should not be left out of interventions, since they are integral parts of athletes' social networks. Education should be provided to parents and coaches regarding stressors and coping among athletes including information regarding potential stressors for athletes, ways of coping with stressors, and adaptive and maladaptive ways of coping. There should be an emphasis on improving communication between athletes and their coaches and parents, with an emphasis on positive social interactions to facilitate the development of coping. Sharing experiences, questioning and reminding athletes about possible ways of coping, providing perspective, and providing opportunities to learn about coping all appear to be practical ways to help athletes learn to cope with stressors in sport. By helping athletes learn to cope adaptively with stressors in sport, they may improve the quality of their sport experiences, thereby reducing burnout and withdrawal. These suggestions are relevant for the Canadian Sport for Life goal of enhanced sport participation and improving the quality of sport for young athletes.

Next Steps

Athletes' perceptions of stressors and use of coping strategies changes with development (Reeves, et al., 2009), and parents and coaches may help athletes learn to cope in qualitatively different ways across stages of development (Skinner & Zimmer-Gembeck, 2009). Future research may investigate the ways in which parents and coaches contribute to athletes' learning to cope at different developmental stages. Understanding how parents and coaches help athletes learn to cope at different stages may help to develop developmentally appropriate interventions for parents, coaches, and athletes.

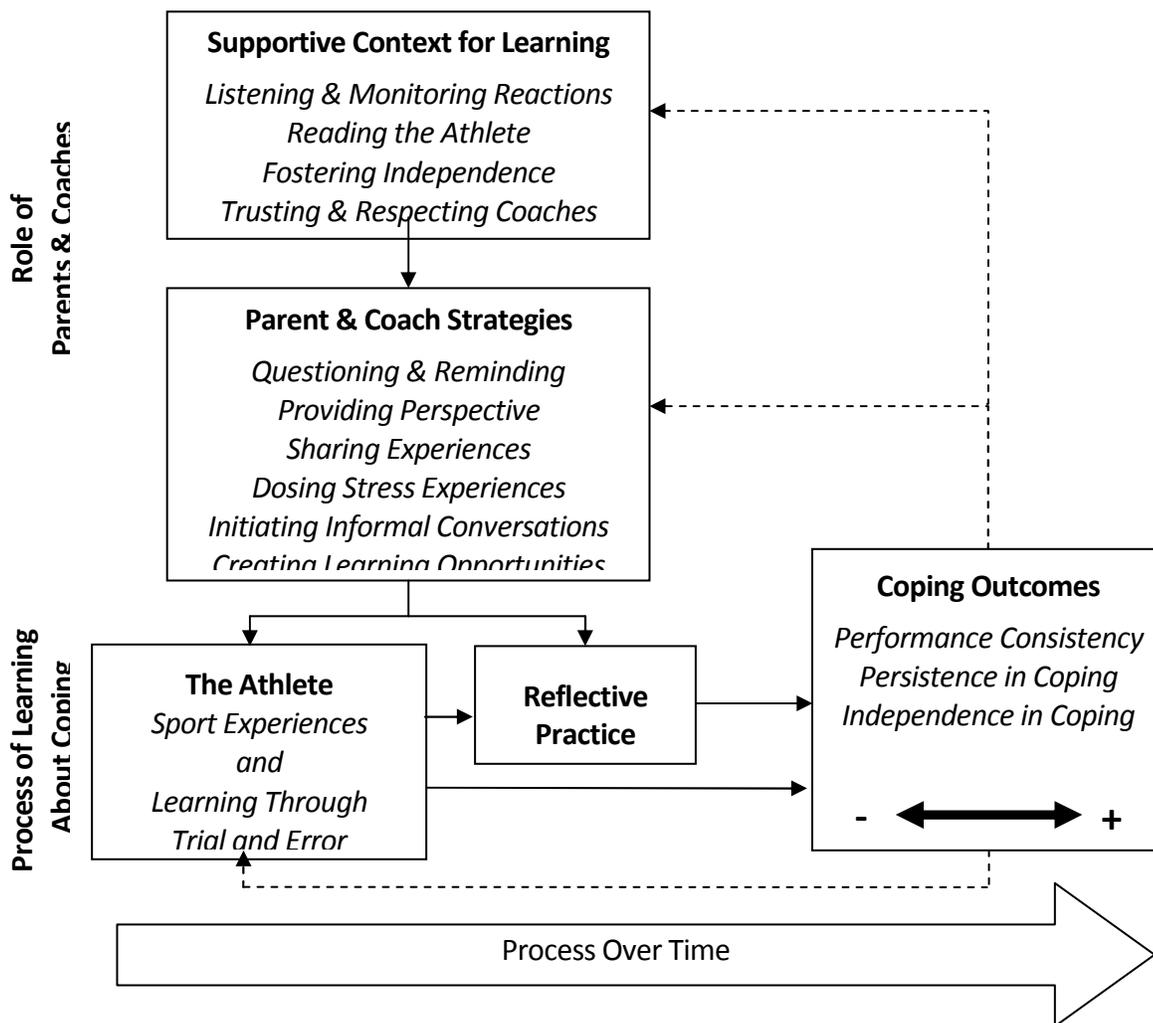
While it is important for athletes to experience potentially stressful situations to develop new coping abilities, parents and coaches must also determine the relative ability of the athlete to cope with stressors. Parents and coaches may adjust their protective practices as athletes develop a repertoire of coping skills. This represents an interesting area of study regarding parent-athlete relationships and the ways in which parents negotiate risks involved in allowing their child to engage in potentially stressful competitive contexts. The question is 'how do parents negotiate their child's involvement in competitive sport?' Future research may include the examination of parental and coach socialization or modeling of coping responses in sport.

Key Stakeholders and Benefits

There appears to be scope for education programs to be distributed through the Coaching Association of Canada, and also through national sport governing bodies to direct information at parents of young athletes.

- Coaching Association of Canada (enhancing supportive coaching environments)
- Sport Canada (encouraging multiple sport experiences for young athletes)
- National & Provincial Sport Organizations
- Academic & coach education programs
- Parents of athletes

Figure 1. A grounded theory of adolescent athletes' learning about coping and the role of parents and coaches.



TRUDEAU, FRANÇOIS

Université du Québec à Trois-Rivières

L. Laurencelle, R. Larouche, R. Shephard

2005

Factors in Adopting Long-term Athlete Development

Project Summary

Purpose: Several studies have reported an age-related decline of physical activity (PA). We examined the impact of four transitional periods—adolescence, the beginning of post-secondary education, entry into the labour market, and parenthood—on the PA of participants in the Trois-Rivières quasi-experimental study. The objective of this project was to identify the contribution of each of these periods to the lifespan decrease of physical activity. A second objective was to verify if a quality daily physical education program could change the impact of these transitional periods.

Findings: These results add to the body of evidence indicating a non-linear age-related decline in PA levels from adolescence to midlife. In our sample, the proportion of “very active” participants (i.e. over 5 hours of PA per week) dropped from 70.4 to 17.0%. A more dramatic decrease was seen on entering the labour market, when the percentage of “very active” participants fell from 55.9 to 23.4%. Moreover, by the age of around 44 years, our experimental subjects (who had 5 hours of physical education per week during childhood) showed no benefit from their PA in adulthood. We conclude that initiatives aimed at further maintaining PA may be warranted during these important transition periods.

Research Methods

A total of 44 women and 42 men aged 44.0 ± 1.2 years were given a semi-structured interview; the frequency and duration of physical activities were examined during each of these transition periods. The subjects had been participants in either an experimental program (5 hours of weekly physical education (PE)) or the standard curriculum (40 minutes of weekly PE) from Grades 1 to 6. The interviews allowed a more in-depth examination of the events that occurred during the transition periods that could have been associated with a modification in PA behaviours. Our sample size also ensures the saturation of data, which, in qualitative studies, determines the point where the addition of new data no longer adds to comprehension of the phenomenon. Furthermore, the control process adopted when analyzing the interviews contributes to the credibility of our analyses.

Research Results

The proportion of “very active” participants decreased by almost 75% between secondary school and the arrival of children. Concomitantly, there was an almost tenfold increase in the prevalence of physical inactivity. According to earlier reports, the decline in PA was not linear; the biggest negative factor was entry into the labour market, when the percentage of “very active” individuals dropped from 55.9 to 23.4%. The influence of each transition is discussed further below.

Transition from primary to secondary school. Although it is difficult to disentangle the respective influences of a change in education system and the onset of puberty, in our investigation over 85% of participants claimed that they were still “sufficiently active” during adolescence. However, many of them had only vague memories of their childhood behaviours.

Beginning of post-secondary education. For those participants who went on to pursue post-secondary education, the percentage of inactive participants increased almost fourfold, while the proportion of “very active” individuals fell by about 15%. Other researchers have also observed a decline in PA during this transition. Many factors might be responsible. Firstly, for many students the need to combine work and academic studies greatly reduces the free time previously available for PA. Secondly, moving to another city for post-secondary studies is likely to reduce PA.

Entry into the labour market. In our study, this transition was associated with the most significant decline in PA. Many participants justified their reduced PA by citing a lack of time as a result of their work. Finally, several individuals reported logistic problems, including, for example, difficulty in getting access to a hockey arena at reasonable hours.

Parenthood. After the arrival of children, almost 25% of participants reported that they were inactive, and 60.1% did not meet the recommended PA level. Such rates are comparable to American data. Many participants suggested they lacked time to be active because of the need to take care of their children. Other researchers have also reported that parenthood is associated with a significant decrease in PA.

Impact of the experimental program on PA behaviour. In the previous follow-up of Trois-Rivières study participants, women from the experimental group were more active than controls when they were 35 years of age. However, our current results suggest that this advantage vanished over the following decade. Thus, it appears that exercise habits in childhood do not necessarily guarantee that individuals will maintain a high level of PA throughout adult life, even though several theoretical models have insisted on the importance of establishing the roots of an active lifestyle during childhood or adolescence. This finding is noteworthy given the importance of maintaining a high level of PA to prevent cardiovascular events, chronic diseases, cognitive impairments and all-cause mortality. The absence of significant differences in PA between the experimental and control groups could derive from many factors. Firstly, the experimental program ended upon entry to secondary school, which is known to be a critical period in the evolution of PA behaviours. However, in our study, the proportion of “very active” individuals during adolescence was still very high. Secondly, several studies have indicated that most adolescents do not compensate for the cessation of compulsory PE in the upper grades of high school by a spontaneous increase in their PA. Finally, early childhood interventions cannot be successful in influencing adulthood physical activity, if not supported by lifespan interventions to favour physical activity.

Policy Implications

Given the decrease in physical activity and sport participation during life transition periods, focus should be placed on individuals and their environment (workplace, post-secondary institution, etc.) throughout promotion campaigns.

Next Steps

Further research on how to prevent a decrease in physical activity and sport involvement during life transition periods is warranted.

Key Stakeholders and Benefits

- Provincial and federal health and education ministries and departments.
- Post-secondary education organizations.

TRUDEAU, FRANÇOIS

Université du Québec à Trois-Rivières

C. Beaudoin, L. Laurencelle, C. Lajoie

Standard Research Grant 2009

Comparison of the determining factors in adopting the Long-Term Athlete Development (LTAD) model for Canadian athletes among coaches from various sport disciplines

Summary of the project

The purpose of this investigation is to determine the process for the adoption and implementation of the Long-Term Athlete Development (LTAD) model by coaches of various sports: soccer (n=116), ice hockey (n=43), figure skating (n=49), gymnastics (n=50) and cross-country skiing (n=36). A large majority of coaches from all the disciplines believe in the benefits and effectiveness of the LTAD in improving their athletes' performance. However, there are significant and consistent differences among the disciplines in the perceived knowledge and ability to apply the LTAD principles. These differences may be due to (1) the type of disciplines that already encourage late vs. early development by their very nature, (2) how consistent the LTAD is with the knowledge in each of the sports, and (3) the moment when the sport federation developed and disseminated its own LTAD model.

Research methods

We carried out the investigation using an online questionnaire with Canadian sports coaches (n=574). We analyzed the questionnaire based on the sport disciplines that had at least 50 respondents (i.e., ice hockey, soccer, cross-country skiing, gymnastics and figure skating). To fully understand the process for adopting and implementing the LTAD, we referred to the diffusion of innovation theory (Rogers, 2003) to develop the questionnaire.

Research results

At the time that the investigation was carried out (2012-2013), cross-country skiing coaches had the highest perceived knowledge of the LTAD (fair to good, 61.1%), whereas for figure skating coaches and gymnastics coaches this percentage was 18.4% and 10%. The beliefs in the anticipated benefits and effectiveness of the LTAD were very high among coaches in all the sports studied. Coaches for soccer, figure skating, ice hockey, cross-country skiing and gymnastics expected fairly high to high benefits and effectiveness from the LTAD in the following respective percentages: 90.9%, 68.9%, 88.9%, 86.9% and 71.5%. The perceived ability to apply the LTAD principles follows the same pattern; it was the highest among cross-country skiing coaches (69.5%, fair to good), and 56.2% and 50% for soccer and ice hockey coaches respectively. However, for gymnastics and figure skating coaches only 30% and 26.6% felt they had the same ability to apply the LTAD principles in their coaching. In the same way, only 4.3% of cross-country skiing coaches believed that implementing the LTAD was fairly complex or complex in their discipline, compared to more than 20% for coaches in all the other disciplines studied. Some organizational constraints were identified by the coaches but no significant difference was noted between the various sports.

It is interesting to note that the large majority of coaches from all disciplines believed in the benefits and effectiveness of the LTAD to improve the performance of their athletes. However, the perceived knowledge and ability to apply LTAD principles show significant and consistent differences among the disciplines. The complexity of implementing the LTAD is also perceived differently depending on the sport. These differences



may be attributed to various factors, namely (1) the type of disciplines that already encourage late vs. early development by their very nature, (2) how consistent the LTAD is with the knowledge in each of the sports, and (3) the moment when the federation developed and disseminated its own LTAD model. In the latter case, coaches of some sports may have been exposed to the LTAD earlier.

Policy implications

Research may help in the process of adopting and implementing the LTAD and other initiatives with coaches at the level of federations as well as in the relevant departments of the various levels of government.

Next steps

Our research is not able to explain the differences observed among the sports. A qualitative approach could help complete the questionnaire-based study by identifying the reasons for these differences among the coaches of the sports studied.

Key stakeholders and benefits

- Provincial and federal sport federations
- Sport Canada

TRUDEL, PIERRE

University of Ottawa

N. Durand-Bush, P. Werthner, W. Gilbert, M. Cloes

STANDARD RESEARCH GRANT–RT Stipend 2006

An Analysis of High School Sport

Project Summary

Among the various opportunities young people have to practise sports, school sports are of particular interest because the ultimate goal of schools is to shape our future citizens. Although school sport has become increasingly popular in Canada, there are very few studies enabling us to assess whether it is achieving its stated mission objective, specifically to promote the overall development of student athletes through sport. An analysis of the data collected over the past three years confirms that (a) all the players involved (administrators, coaches, student-athletes, parents) believe that sport helps impart values and life skills to student athletes; (b) the way in which school sport is structured can affect the transmission of values and life skills; (c) coaches receive little training on teaching values and life skills and have difficulty providing tangible examples of activities they use to do so; and (d) recruiting coaches is a significant problem.

Research Methods

In phase 1, interviews were conducted with school principals (n=13), coaches (n=50), student-athletes (n=20) and parents (n=20). In phase 2, a questionnaire was administered online to survey and gather the views of over 1,100 school sport actors in Quebec (administrators, coaches, student-athletes and parents).

Research Results

All school sport actors (administrators, coaches, parents and student-athletes) believe that this type of sport is beneficial but agree that there is room for improvement. Administrators report perceiving the greatest gap between the ideal situation and what the situation actually is. When we compare the sport structure in Quebec (where student-athletes practise one sport year-round) to that in Ontario (where student-athletes can practise several sports because the season lasts only a few months) we note significant differences in terms of who does the coaching (teachers, parents, student-athletes) and, consequently, the expected effect of sports practice on the transmission of values and life skills. Parents play a supportive role (financial, logistical and psychological), but this role becomes less important in the student-athlete's last year of high school. Interviews with student-athletes revealed that because of the way they are structured, certain sports provide more opportunities for developing values and life skills than other sports. In addition, the opportunity to negotiate their specific sports activities with their coaches and parents may be an important factor to the global development of student-athletes through school sport. In this study, data was collected through interviews and a questionnaire, which provided the views of the various actors on school sport. It would be useful to conduct field observation studies in this area.

Policy Implications

- Providing young Canadians with a positive sport experience in school will result in rising rates of sport participation and will help youth develop values and life skills. These two points have been previously raised in government reports.
- Sport Canada (2002; Canadian Sport Policy)

- There is a need to improve the place of sport and physical activity in schools and upgrade the training of coaches.
- Canadian Centre for Ethics in Sport (2003/2004; The Sport we Want)
- School sport functions independently from community sport and the two could be much more closely linked for the benefit of participants and the community.

Next Steps

Although sport can provide opportunities supporting the overall development of children and adolescents, we must maintain realistic expectations regarding the potential of school sport to impart values and life skills. The data indicates that a shortage of coaches leads administrators to rely increasingly on parents or students finishing high school, who often have no coaching training and are probably poorly qualified to use sport as a basis to teach values or life skills. Our initial reaction could be wanting to develop a training program specifically designed for schools but how would coaches respond? How many hours of training would be required to train a coach to teach values and life skills? Could we ask volunteer school sport coaches to put in even more hours? In addition, a strategy focusing solely on coaches would not be adequate because to ensure that school sport can contribute to the overall development of children and adolescents, coaches need the support of administrators, parents and players.

Key Stakeholders and Benefits

- Organizations Responsible for School Sport:
- Canadian School Sport Federation (CSSF)
- Ontario Federation of School Athletic Associations (OFSAA)
- Fédération Québécoise du Sport Étudiant [Quebec student sports federation] (FQSE)
- Coaching Association of Canada (CAC)

TRUSSEL, DAWN

University of Waterloo

Doctoral Stipend 2007

Organized Youth Sport, Parenthood Ideologies and Gender Relations: Parents' and Children's Experiences and the Construction of "Team Family"

Project Summary

This study sought to understand how family relationships, interactions, and values are shaped by children's sport involvement, and the social and cultural context in which their sport participation occurs. The themes that emerged from this study reflect the contradictory nature of organized youth sport, including the strengthening of familial relationships, as well as the tensions and disagreements arising out of divergent perspectives. Emphasis is put on the public nature of parenting in the youth sport context and its relationship to social constructions of being a "good parent". In terms of broader implications, the study emphasizes the close connection between organized youth sport, and changing cultural ideals and practices associated with gender and parenting.

Research Methods

Semi-structured interviews and on-line participant journals (10 days duration) were used to discover divergent experiences of mothers, fathers, and children. Individual semi-structured interviews occurred in the family home. Informal observations and conversations were also recorded while spending time with family members sharing meals and at other informal family gatherings. A purposive sample of seven families (19 children, 7 mothers, and 6 fathers) participated in the study. Data analysis was guided by a constructivist grounded theory approach to facilitate understanding of participants' perceptions and meanings of youth sport participation.

Research Results

Data analysis revealed three major themes: "Understanding Children's Experiences", "Parenting in Public and Private Spaces", and the "Nexus of Family Experiences". From these themes, a core theme emerged reflecting the idea of "Upholding Team Family".

"Understanding Children's Experiences" revealed the intensity of the children's activities and how it had become a way of life for many of them. Children clearly enjoyed the "fun" and social aspects of organized youth sport, and also understood the socio-cultural importance of their participation as it related to living a healthy and active lifestyle. Children's participation in organized youth sport also had implications for their relationships with their siblings in ways that both strengthened and caused considerable tension. For some children, organized youth sport gave them common interests, regardless of their age or gender that appeared to provide a sense of unity. Yet, for other children, living with a "star athlete", particularly when the "star athlete" was younger, created feelings of tension and inadequacy for the older sibling and a desire to drop out of sport.

The second major theme "Parenting in Public and Private Spaces" revealed the parents' perspectives on the high cost of youth sport for the family unit (emotional, physical, and financial cost). Yet, organized youth sport was believed to be a highly valued activity. The provision of such opportunities was characterized as a necessary characteristic of being a "good parent". The parents' own beliefs were then used to evaluate other

parents (in the community, their spouse, and the grandparents) and their moral worth as a good parent. Observations of the other parents' behaviour in the community, and their level of involvement/support for their children's activities, as well as their behaviour at games, provided the basis for their judgment. Further, parents also expressed a sense of obligation to the sport organizations related to their volunteer responsibilities. The organizational politics were revealed to create heightened tension and frustration within the family unit. The parents' volunteer responsibilities were also seen to shape the parent-child relationship (both strengthen and weaken). The gendered nature of the parents' organizational responsibilities (fathers in highly visible roles, and mothers in hidden periphery roles) and the mothers' primary responsibility for the coordination of their children's activities was also evident.

"The Nexus of Family Experiences" illustrated the intersections of the children's and parents' perspectives. In particular, this theme revealed the complexity of the decision-making processes. On the surface it appeared that the children made their own decisions, but underlying this discourse was a sense of the subtle and not so subtle pressures exerted by the parents. At times, the children were coaxed in a particular direction and this was shaped by parental pressure related to family resources (e.g., time, money), parents' preferences for specific sports, and parents' notion of commitment and "sticking it out". Moreover, underlying pressures by family members, other children, and broader society, as they related to cultural values of gender-appropriate activities, shaped the children's decisions for their sport involvement.

From these three major themes, a core theme emerged reflecting the idea of "Upholding Team Family". Throughout the three major themes, there was an overall sense of organized sport creating a shared family identity and sense of belonging, and at the same time, the significant sacrifices to family life that were made in the creation of this identity. Moreover, the sense of upholding team family was revealed in both the public and private spheres of family life.

Policy Implications

Through education and awareness to youth sport organizations and parents, promote aspects that encourage positive experiences for parents and children:

Recognition of mandate of youth sport program and appropriate level of intensity. Many parents talk about the long and intense seasons that were often perceived as too much for the recreational level. Thus, families make the decision to limit the number of sport opportunities rather than supporting multi-sport/seasons, and/or drop out of the sport program altogether. Also, significant strain to family life is evident with the numerous "extras" (i.e., tournaments) that require additional financial resources and time commitments.

Recognition of the high time commitment of volunteers who are often parents of children on the team. This commitment shapes the nature of the parent-child relationship with their other children (often perceived negatively). It also heightens the parents' exhaustion and fatigue, and consequently, is a strain on continuing to support children's active participation. Consider alternate models such as "job sharing" to help minimize the time commitment as well as provide parents with the opportunity to spend time with their other children and family members.

Educate parents on how youth sport participation can shape sibling relationships. Some children may need to be supported in different programs/activities from their siblings to enhance feelings of being proficient and skilled, rather than live in the shadow of their athletically talented sibling (which for some increases their desire to drop-out).



Recognition by sport programs that youth sport becomes a venue where the quality of parenting may be judged by other parents. Development of support programs (e.g., formal car pooling schedules) to support families with diverse employment contexts (i.e., shift work, evening/weekend jobs, low-income) that constrain parents' ability to support their children's sport participation.

Next Steps

The present study was limited to the experiences of selected families. Clearly it will be important in future research to capture the experiences and meanings of other families. For example, the families who participated in this study were a fairly homogenous group with two heterosexual parents who were married (with no indication of being a "second-marriage"), and Caucasian. Families from diverse family forms such as co-habiting or gay or lesbian families may reveal diverse perspectives. Blended and single-parent families may also have different experiences related to time pressures and conflicting familial demands. Families from different race and ethnic groups may also attach different meanings to family life and organized youth sport. Further, many of the participants in this present study expressed a clear pro-sport ideology, and this may affect the applicability or transferability of the findings to other families who do not have similar pro-sport values and beliefs.

Key Stakeholders and Benefits

Grass-root community sport organizations such as "True Sport" and other federal/provincial governing minor sport organizations, may benefit from understanding how organized youth sport shapes family life, and consequently, the type and frequency of children's participation.

ULVICK, JOCELYN D.
University of Saskatchewan
K, Spink
Doctoral Stipend

The relationship between team cohesion and youth sport participation

Project Summary

The first objective was to examine the relationship between task and social cohesion, and three participation-related outcomes (self-reported effort, practice attendance, and intention to return to the team the following season).

Results indicated that cohesiveness around the team's task was positively related to effort and intention to the return, but not to practice attendance. Cohesiveness around the social elements of the team was only related to players' self-reported effort.

The second objective was to examine whether players' perceptions about their teammates' effort would qualify the relationship between task cohesion and individual effort.

Results indicated that, although cohesion was positively associated with effort for all athletes, this relationship was strongest when athletes perceived that their team had a high norm for effort (i.e., a greater percentage of players were identified by players as working as hard as they could). These findings suggest that team norms surrounding how hard team members are working may be an important consideration insofar as the extent to which team cohesion has the potential to enhance individual participation.

The third objective was to explore the role of social support in the task cohesion-participation relationship. Specifically, this study examined whether perceptions of teammate support (e.g., being available in times of need, sharing common interests, and feeling recognized and encouraged) could be a plausible explanation for why perceptions of early-season team cohesion may positively influence individual participation.

Results indicated that perceptions of teammate support were positively associated with both cohesion and individual participation (effort and intention to return). These findings provide an initial suggestion that it may be worth considering social support as a variable that might help explain the relationship (i.e., mediator) between a team variable such as cohesion and subsequent measures of player engagement in future experimental research.

Research methods

Participants completed a pen-and-paper questionnaire at two time points during their soccer season. The first time point occurred during the first two weeks of the season. The second time point occurred within the last week of the season. These questionnaires were administered during a scheduled team practice by the student researcher.

Research results

Team cohesion is related to several different participation outcomes in youth sport, including self-reported effort levels and intention to return to the team in the future.

This relationship was most pronounced on teams where more players were perceived to be working hard (i.e., high norms for effort).

Social support from teammates was related to players' perceptions of their teams' cohesiveness, as well as their own self-reported effort and intention to return.

Limitations:

These studies were conducted using non-experimental research designs. In order to determine whether perceptions of team cohesion can "influence" participation-related behaviours, the relationships reported here need to be tested using an experimental design.

As well, this series of studies was conducted with a small sample of ten youth soccer teams from a mid-sized Canadian city. Although there was a cross-section of competitive levels (recreational through competitive), findings from this research may be limited to youth soccer players in an urban setting. Considering that the majority of the sample (72.4%) was female, it also may be that these results pertain more to adolescent females (although no specific gender differences were found).

Policy implications

To date, the majority of the research on youth sport participation has focused on intrapersonal variables (e.g., motives, competence, etc.). This research considered how interpersonal variables, such as the nature of the peer relationships within the team setting (e.g., cohesion, norms, social support), may relate to sport involvement.

Research findings provide initial evidence that team cohesiveness, and concomitant factors such as team norms and teammate support, are important in how hard players work and whether they intend to come back to the team. With that, sport programmers and team coaches may wish to consider how principles of team building for cohesion could encourage improved player involvement with the team (Carron, Spink, & Prapavessis, 1997).

Next steps

This research represents initial work in understanding the relationship between team cohesion and individual sport participation in adolescents. In addition to the need to replicate the current findings with other youth samples, an important next step involves testing the relationships that emerged via experimental study designs. Specifically, it would be informative to examine how interventions aimed at enhancing team cohesion (i.e., team building) may affect various participation outcomes.

Key stakeholders and benefits

These preliminary findings may be interesting for researchers, coaches, and even parents. However, although these results point to the potential value of team cohesion in enhancing participation, more research is needed to establish cause-effect relationships before specific guidelines are developed for promoting team cohesiveness in the youth sport setting.

Organizations that may be interested in these findings include:

- Local/provincial/national single or multi-sport bodies
- Physical education/school sport organizations, such as PHE Canada
- Coaching organizations, such as the Coaching Association of Canada (CAC)

WATTIE, NICK

York University

Doctorate 2008

Relative Age, Recreation Sport Participation and Youth Development

Project Summary

In both youth sport and education, children and adolescents are grouped into cohorts by using annual age grouping policies, whereby a child must be a certain age by a specified selection date (e.g., December 31st). Relative age describes the fact that children born early in their cohort/selection year (e.g., January) will be *relatively older* - by up to 12 months - than their peers that are born late in the selection year (e.g., December). Research has shown that relatively older youth may be more likely to be selected to youth sport teams, including school sports teams, and also more likely to make it to elite/professional levels of play in some sports (i.e., soccer and hockey).

The purposes of the current project were:

- To gain a better understanding of the different factors that might affect whether or not relative age influences recreational youth sport participation among boys and girls. The current project considered the quality (low vs. high) of youths' school environment.
- To explore how sport participation and relative age interact to influence indicators of positive development (i.e., self-perceptions of academic competence, social acceptance, physical appearance, behavioural conduct and global self-worth).

Relative age was only an influence on sport participation among boys in a school with a low quality rating, with relatively older boys more likely to participate. Relatively older boys also reported higher levels of enjoyment of sport and physical education. Relative age was not related to participation or enjoyment among girls in a *lower-rated* school or a school with high quality rating. And relative age was not related to participation among boys in a *higher-rated* school. Interestingly, sport participation was only related to indicators of positive youth development among boys in the *higher-rated* school, where relative age had no influence on participation.

Research Methods

Participants were purposefully sampled from two different schools in the United Kingdom. The first sample was drawn from a school which had been given the lowest possible quality rating (i.e., Inadequate) by government inspection procedures. Youth were 11 to 14 years of age (mean±: 12.9, ± 0.86), and the sample size was 391 (46.3% female). The second sample was drawn from a school which had been given the highest possible quality rating (i.e., Outstanding). Youth were 11 to 12 years of age (mean±: 11.70, ±0.29), and the total sample size was 206 (48.1% female). Participants completed questionnaires that asked them to describe their participation in sport(s), how much they enjoyed sport, and indicators of positive youth development (i.e., self-perceptions of academic competence, social acceptance, physical appearance, behavioural conduct, and global self-worth). Demographic and school-related variables were also collected from the schools.

Research Results

Among those in the *Inadequate-rated* school relatively older boys were more likely to be participating in sport(s). Relatively older boys, regardless of whether they participated in sport, also reported higher levels of enjoyment for both sport and physical education (PE) classes. Relative age did not influence sport participation or enjoyment of sport and/or PE among girls. Overall, approximately 32% of youth from this school participated in sport(s). Relative age and/or sport participation did not have an influence on boys or girls self-perceptions.

Relative age had no influence on sport participation among either boys or girls in the *Outstanding-rated* school. Overall, 76% of youth in this school regularly participated in sport, making youth in this school approximately 7 times (OR: 6.98, 95% CI: 4.75-10.26) more likely to participate in sport compared to youth in the *Inadequate-rated school*. Boys, and to a lesser extent girls, who participated in sport(s) had higher self-perceptions (i.e., perceptions of academic competence, social acceptance, physical appearance, and global self-worth) compared to those than didn't participate

Generalizations based on this project should be tempered by the fact that only two schools were sampled, and significant variation between schools may exist. Similarly, this project is only one of the few that has explored relative age among recreational participants and females; as such more research is needed in these areas. Furthermore, future research will need to consider the influence of specific sports on the trends reported in the current project.

Policy Implications

The results of the current project suggest that addressing the influence of relative on sport participation, at least at the recreational level, may not require making modifications to selections dates or annual age grouping policies. Solutions may need to consider wider social trends (such as inequalities in the distribution of resources), and broader non-sport characteristics (such as school environment). Furthermore, any policies aimed at addressing the influences of relative age may need to be gender-specific (since relative age had a more salient influence among boys). In summary, just looking at relative age alone does not provide a “whole picture” of the factors that influence sport participation.

Next Steps

The findings of the current study suggest several possible directions for future research. In particular, the current project suggests that by only looking at relative age alone important nuances and trends may be missed. Therefore, for a complete understanding of how relative age influences sport participation and outcomes related to sport participation, future research will need to consider relative age alongside the many other factors that have been shown to influence sport participation. This “whole picture” may involve including socioeconomic status, ethnicity, family size, overall age as well as characteristics of specific sports in future relative age research projects.

Key Stakeholders and Benefits

The influence of relative age on sport participation would be of interest to policy makers, parents and coaches involved in both recreational and competitive youth sport. However, the results of the current project may also be of interest to those within the education sector. Dialogues between those in the sport and education sectors may be necessary to address the complexities of relative age's influence on sport participation.

WEIR, PATTI

University of Windsor

S. Horton, J. Baker

Standard Research Grant 2010

The relationship between sport, physical activity, and social engagement: A profile of Canadian seniors

Project Summary

Models of successful aging (SA) encourage a continued engagement with life, which research literature refers to as a diverse set of activities including productive (e.g., housework), social (e.g., visiting friends), passive (e.g., reading), and active leisure (e.g., playing a sport) pursuits. It is widely accepted that engaging in life promotes a more meaningful and healthy aging process. However, despite the wide range of published literature, very little is known about the role of active leisure/physical activity in the maintenance of engagement, and thus successful aging. Similarly, literature remains sparse regarding the patterns of change that exist among engagement profiles throughout the decades of older adulthood. Therefore, the current research project develops our understanding of these concepts by examining the relationships between engagement and functional health, and by exploring “how” and “why” engagement patterns change during older adulthood.

Research methods

In Part 1 of this research project, 287 English speaking older adults (age range: 55-90 years; M age: 68.7 ± 8.09 years; males, n = 110; females, n = 177) participated. Participants completed a questionnaire that surveyed: a) how often they participated in productive (e.g., cooking), social (e.g., visiting with friends), passive (e.g., reading), and active leisure (e.g., walking for fitness) activities over a seven-day recall period (0, 1-3, 4-6, or 7 times), b) their level of physical function (“have no difficulty” to “not able to do”) on a series of seven tasks (e.g., walk 0.8 km, climb a flight of stairs without resting, lift or carry a weight over 4.54 kg etc.), and c) their level of cognitive function on four tasks (e.g., find the right word when talking, remember where you put something, etc.). Two measures of frequency were quantified. First, within each category of engagement the percentage of activities participated in was calculated. Second, each of the 29 activities was grouped into either a high, moderate, or low activity frequency category based on the coefficient of variation calculated across all participants. Hierarchical regression was used to assess the impact of frequency of participation on physical and cognitive function.

Part 2 of this research project included 54 community dwelling older adults (age range = 65-97 years; M age: 79.17 years; 21 males) separated by decade of life (65-74 years: n = 21; 75-84 years: n = 21; 85+ years = 12). All participants completed two questionnaires in order to quantify ‘past’ and ‘present’ engagement in 30 engagement activities (e.g., reading) through the use of a four point Likert scale (1 – *never* to 4 – *often*). Differences in activity participation by decade of life and across a five-year time frame were determined through a series of mixed design ANOVAs. To determine ‘why’ engagement changed during older adulthood, (6) focus groups and (16) semi-structured interviews were completed with a subsample (n = 42) of participants from each decade of life (65-74 years: n = 17; 75-84 years: n = 17; 85+ years = 8). Textual data was inductively analyzed allowing for the emergence of themes through the constant comparison of participant quotes.

Research results

Part 1

- The engagement category with the highest percentage of activities participated in was social, and the engagement category with the lowest percentage of activities participated in was active-leisure
- Despite the low participation, active-leisure activities were the only significant predictor of improved physical function
- The high frequency activities were comprised primarily of passive-leisure, productive, and active-leisure activities (e.g., computer use, gardening/light housework, walking for fitness)
- Participation in high frequency activities predicted improved physical and cognitive function

These findings suggest that accounting for the frequency of participation is important in establishing a relationship between different types of engagement and function. They also highlight that high levels of participation in a wide variety of activities over the course of the week is important for maintaining and improving function. Looking at engagement in terms of frequency adds to the literature by showing that the specific activity might not be important, rather the overall frequency of participation.

Part 2

- Participation in specific productive activities (volunteer work, care for others, employment, home repairs, and heavy housework), as well as overall participation in active-leisure activities, decreased over a five-year time frame in older adulthood
- Participation in social and passive-leisure activities was maintained throughout older adulthood
- Engagement profiles during older adulthood reflected: (1) the individual's health and physical functioning, (2) the death of one's spouse/social contacts, (3) a sense of freedom associated with older age, (4) one's desire to participate, and (5) external factors such as family role, finances, and the availability of direct support

These findings contribute to the literature, as limited knowledge currently exists pertaining to the time-use patterns of older adults. It is suggested that decreases in productive and active-leisure activities may result from factors such as decreased health or conflicting external circumstances, while the maintenance of social and passive-leisure activities may be a function of one's desire and freedom to participate in one's activities of choice. Taken together, exploring activity patterns during older adulthood provides a further understanding of the role 'engagement' plays in the overall process of successful aging.

Policy implications

These findings highlight the importance of community organizations offering a wide variety of programming and engagement options for older adults as a greater frequency of participation in *any* activity may surpass the benefit of participation in a *specific* activity. Therefore, if a range of activities is available, older adults may increase the frequency in which they engage in activity, as they can utilize their freedom of time and choice to participate in an activity in which they desire, and are physically capable of completing. However, it remains important that community organizations create opportunities for active-leisure participation in older adulthood as such engagement contributes to the maintenance of physical functioning and is highly valued by older adults. As such, it is suggested to collaborate with older adults to identify active-leisure activities that may garner continued participation. For example, by capitalizing on the maintained social engagement profile of older adults (as identified in 'Part 2' of this research study), community organizations are suggested to target pre-existing social groups as a means to foster the desire to participate in active-leisure pursuits (i.e., a walking group).

Next steps

Through an understanding of the patterns of engagement profiles during older adulthood, as well as the importance of overall activity frequency, especially in active-leisure pursuits, this research project has set the foundation for the development of a community intervention framework focused on providing opportunities for active-leisure participation within community neighborhoods. Interventions will seek to capitalize on the value older adults place on maintaining social engagement, by providing opportunities to pre-existing social groups to participate in active-leisure activities (i.e., urban pole walking). In addition, future work will seek to identify active-leisure preferences among older adults and make such options available in community neighborhoods. Identifying such preferences is of importance as this research project provided evidence that older adults will use their resources (i.e., time) to participate in activities in which they desire. Thus, future interventions must focus on offering desirable active-leisure activities in order to encourage older adults to maintain their past level of engagement in such health-promoting activities.

Key stakeholders and benefits

- Provincial Ministries of Health Promotion, Sport and Physical Activity
- Health Canada
- Sport Canada
- Provincial and National Associations for Aging and Gerontology
- Municipal bodies responsible for health promotion, sport, and physical activity

YOUNG, BRADLEY

University of Ottawa

J. Starkes, N. Medic

Doctorate 2007

Lifespan Analyses of Social Influence on the Sport Commitment and Participation of Masters Athletes

Project Summary

This research aimed to identify the nature of various social influences determining increased commitment to continue sport involvement among middle-aged and older sport participants. Research was conducted among samples from international-, national-, and regional-level masters sport (> 35 yrs old) events, as well as from Senior Games (55+ yrs) events. First, results showed that the influence of significant others was related to higher levels of voluntary (functional) sport commitment among masters athletes (MAs), which is important because voluntary commitment typically encourages continued participation. Some evidence showed that the influence of significant others on functional commitment depended on age status. For example, younger MAs (40 yrs old) reported more functional resolve to continue sport when perceived expectations and pressures from others declined, whereas older MAs (early 60s) increased their desire to continue sport as expectations from significant others rose. Second, results showed that both positive social influence (support) and negative social influence (expectations/pressure) were important to consider in ensuring that participants continued in sport, without feeling highly obligated to do so. For example, when international-level MAs reported increases in perceived social support over the course of a year, their feelings of obligatory commitment correspondingly decreased, which is important because high feelings of obligation do not typically foster continued involvement. Third, for subsets of MAs that reported a broad social network around them, the four most important agents for influencing sport commitment were one's spouse (or significant other), own children, training partners, and one's health professional. Masters athletes' obligatory commitment levels were predicted by perceived pressure from one's spouse and from training partners, such as the anticipated disapproval from these agents should they quit their sport. Endorsement of sport participation from one's physician, on the other hand, was associated with lower obligatory commitment. Pressure from one's children to continue in sport was a salient perception explaining both obligatory and functional commitment. Fourth, descriptive data revealed that not all MAs have a broad social network surrounding them (e.g., > 20 % report no children or spouse), and it may be possible that a different set of social agents may be influential for these athletes. Fifth, some small gender differences were observed, with males typically reporting stronger obligations to have to continue their sport involvement, with males' obligatory commitment levels being more strongly tempered by social support, and males' obligatory commitment levels being more strongly related to social pressures.

A secondary objective was to examine the influence of individual factors on sport commitment, in order to more fully understand what facilitates continued commitment, above and beyond social influences. In both longitudinal and cross-sectional samples, functional commitment was most strongly predicted by the degree to which participants reported enjoying the sport experience. Additionally, longitudinal results for international-level masters demonstrated that increased perceptions of having invested personal resources in sport predicted increased functional commitment, especially among older cohorts (> 60 yrs). When athletes increasingly anticipated having enjoyable experiences and special occasions as a result of future sport involvement (i.e., involvement opportunities), then their voluntary commitment also rose, especially among

younger masters (40 yrs). Results indicated that involvement opportunities relating to mastery of personal skills, improvement of health and fitness, travel through sport, achieving competitive goals, delaying effects of aging, and social reasons, were important. Findings were replicated for the most part in cross-sectional analyses for regional-level masters and Senior Games athletes. Gender effects indicated that females' functional commitment was more strongly predicted by personal investment.

Research Methods

Cross-sectional and longitudinal (panel design) self-report survey methods involving reliable and valid instruments relating to the Sport Commitment Model were distributed on-site or via an on-line platform to participants from masters sport events and clubs, and Senior Games events.

Research Results

Current MAs and Senior Games participants report much higher levels for functional (voluntary) commitment than they do for obligatory commitment. Thus, on the whole, they are doing sport because they want to and have freely chosen it. Still, many participants report concurrent, yet lower levels of obligatory commitment, which may be problematic because obligation does not necessarily facilitate continued involvement and may be related to drop-out.

Perceived social support was positively associated with the types of commitment that sustain sport involvement, and perceived social pressures determined the types of commitment that possibly result in drop-out or discontinuance.

Individual factors related to enjoyable experiences, prior investments in sport, and perceptions of diverse beneficial involvement opportunities unique to masters sport, each determined the types of commitment that facilitate continued sport participation. Perceptions of enjoyable experiences are particularly important at all life stages, perceptions of prior personal investments are increasingly important at older ages (> 60 yrs) and more so among females than males, and perceived involvement opportunities have the strongest effects on commitment under the age of 60.

Social support interventions should focus on the social agents that appear most influential for increasing commitment. Based on the present findings, MAs (who report a broad social network) would benefit from interventions that focus on spouse, children, training mates, and health practitioners.

Limitations of results/conclusions:

Additional analyses need to link each of the types of commitment to the frequency, intensity, and seasonal nature of MAs' involvement, and to determine the impact of across several consecutive seasons.

Results pertain to already active sport participants, thus, findings are more likely to inform interventions to retain individuals; applying findings towards the recruitment of new individuals to masters sport would require confirmation with different samples.

Policy Implications

Relevance of research to enhancing sport participation in Canada:

- Strategies to increase participation should focus on elevating functional commitment, while alleviating conditions that cause obligation. Education and sport curriculum guides for MAs, their significant

others, coaches or programmers might illustrate examples of ways to facilitate conditions for functional commitment.

- Sport programming interventions might consider means to reduce pressures from, and/or encourage support and the sharing of supportive resources from spouse, children, and training mates, and find means to heighten support from health practitioners.
- Informational strategies to promote lifelong sport should enunciate the enjoyment of present participation, but also highlight the diverse involvement opportunities that have been reported by MAs. Opportunities that should be advertised as part of the masters sport 'brand' include: competitive achievement and personal challenge, skill learning and mastery, health and fitness, social motives, travel through sport, and deferral of aging effects. These involvement opportunities should inform activity programming. Without discounting its importance, our findings suggest that prior literature has possibly overestimated the opportunity for social affiliation, while failing to acknowledge the attractive opportunities that MAs see in competition and testing one's skills. The aforementioned opportunities should perhaps be celebrated as being more diverse than opportunities afforded by other alternative leisure pursuits for middle-aged and older individuals. It may also be important that these opportunities be advertised as applying to an entire community of masters participants, to counter the risk that many in society see the masters sport experience as relating only to the exceptional few (i.e., the super age-group athletes) featured in popular media. Interventions that advertise anticipated benefits unique to sport participation should be important at all life stages, though our research suggests that their effects may be greatest for participants < 60 yrs. Finally, strategies to retain active participants (especially females, and those > 60 yrs) might focus on having individuals reflect on the amount of time, energy, and effort that they have already invested in sport.

Next Steps

One research question may be to identify the individual and social conditions that attract new people to masters sport. Newcomers may be 're-engagers', people who formerly did sport in youth but then disengaged, 'transfers' from one sport to another, or 'first-timers' who are engaging in sport for the first time as an adult, and the conditions for adopting sport activity may vary among these groups.

Key Stakeholders and Benefits

Findings may inform sport programmers/organizations who seek to strategically tailor activities and resources to the personal and social motives of MAs, with the goal of building a critical mass of lifelong sport participants, in a system that sufficiently sustains participants' involvement such that they may benefit from sport over the long-term.



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