

# Prevalence of Common Mental Disorders Among Elite Canadian Athletes

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## Background

- Approximately 20% of Canadians will experience a mental disorder over a 12-month period, and researchers have reported similar rates of mental disorder among elite athletes. (Gorczyński et al., 2017; Mental Health Commission of Canada, 2013)
- Experiencing sport-related stressors may place elite athletes at a higher risk of experiencing a mental disorder than non-athletes. (Gulliver et al., 2015)
- Stress Process Theory (SPT) focuses on interconnections between multiple stressors, and personal resources, rather than focusing solely on the impact of single factors on mental health. (Aneshensel, 2015; Pearlin et al., 1981)
- Relatively little is known about the prevalence of mental disorders among elite Canadian athletes.
- Research on athlete mental health from other countries may not be generalizable to a Canadian context because elite sport environments can vary substantially between nations. (Green & Houlihan, 2004)

## Research Questions

- 1) What are the baseline levels of depression, anxiety, and eating disorders among Canadian athletes prior to an Olympic/Paralympic Games?
- 2) Do stress, training load, received social support, coping skills, and self-esteem correlate with depression, anxiety, or eating disorders as suggested by the SPT?

## Methods

- **Participants:** Canadian national team athletes who were training for the 2020 Summer Olympic or Paralympic Games.
- **Data Collection:** Survey measures informed by the SPT.
  - Perceived Stress Scale
  - Training Load
  - Athletes' Received Support Questionnaire
  - Athletic Coping Skills Inventory
  - Rosenberg Self-Esteem Scale
  - Centre for Epidemiologic Studies Depression Scale – Revised
  - Generalized Anxiety Disorder 7 Scale
  - Eating Attitudes Test
- **Data Analysis:** Descriptive statistics and Spearman correlations in SPSS.

## Results

### Descriptive Statistics

	N	Mean	Median	SD	Mean SE	Range	
						Min.	Max.
<b>Perceived Stress Scale</b>	192	24.58	24	7.49	0.54	9	46
<b>Training load</b>							
<i>Physical Wellness Subscale</i>	192	2.72	2.75	0.61	0.04	1	4.25
<i>Psychological Wellness Subscale</i>	190	2.73	2.67	0.73	0.05	1	5
<b>Athletes' Received Support Questionnaire</b>							
<i>Emotional Support Subscale</i>	189	2.36	2.20	0.98	0.07	.60	4
<i>Esteem Support Subscale</i>	190	2.26	2.30	1.04	0.08	0	4
<i>Informational Support Subscale</i>	190	1.67	1.58	0.90	0.07	0	4
<i>Tangible Support Subscale</i>	178	1.71	1.67	1.04	0.08	0	4
<b>Athletic Coping Skills Inventory</b>							
<i>Coping with Adversity Subscale</i>	185	50.63	52	10.95	0.80	18	76
<i>Peaking Under Pressure Subscale</i>	181	6.43	7	2.21	0.16	0	12
<i>Goal Setting/Mental Preparation Subscale</i>	182	6.7	7	2.93	0.22	0	12
<i>Concentration Subscale</i>	184	7.24	7	2.89	0.21	0	12
<i>Confidence and Achievement Motivation Subscale</i>	183	7.46	8	2.02	0.15	1	12
<i>Coachability Subscale</i>	179	8.64	9	1.87	0.14	2	12
<i>Freedom from Worry Subscale</i>	180	8.89	9	2.24	0.17	1	12
<i>Rosenberg Self-Esteem Scale</i>	185	5.52	5	2.91	0.21	0	12
<b>Centre for Epidemiologic Studies Depression Scale – Revised</b>	185	30.18	31	5.69	0.42	10	40
<b>Generalized Anxiety Disorder 7 Scale</b>	185	13.41	12	9.96	0.73	0	58
<b>Eating Attitudes Test</b>	185	6.16	6	4.5	0.33	0	21
	184	7.73	5	8.33	0.61	0	60

### Spearman Correlations and Cronbach's Alphas

	1	2	3	4	5	6	7	8	9	10	11	12
<b>1. Perceived Stress</b>	$\alpha=.84$											
<b>2. Physical Wellness</b>	.43***	$\alpha=.692$										
<b>3. Psychological Wellness</b>	.62***	.45***	$\alpha=.65$									
<b>4. Emotional Support</b>	-.12	-.22**	-.15*	$\alpha=.89$								
<b>5. Esteem Support</b>	-.25***	-.25***	-.22**	.77***	$\alpha=.93$							
<b>6. Informational Support</b>	-.12	-.21**	-.20**	.56***	.66***	$\alpha=.88$						
<b>7. Tangible Support</b>	-.16*	-.07	-.14	.32***	.45***	.57***	$\alpha=.87$					
<b>8. Coping Skills</b>	-.44***	-.32***	-.34***	.22**	.33***	.25**	.04	$\alpha=.86$				
<b>9. Self-Esteem</b>	-.49***	-.33***	-.30***	.14	.24**	.11	.10	.39***	$\alpha=.90$			
<b>10. Depression</b>	.66***	.43***	.57***	-.19*	-.29***	-.12	-.13	-.33***	-.46***	$\alpha=.90$		
<b>11. Anxiety</b>	.70***	.46***	.61***	-.12	-.22**	-.14	-.14	-.40***	-.46***	.70***	$\alpha=.87$	
<b>12. Eating Attitudes</b>	.16*	.03	.11	-.12	-.15	-.04	-.06	-.06	-.21**	.29***	.17*	$\alpha=.87$

## Discussion & Future Directions

- Findings are consistent with previous literature which indicates that athletes may be at an increased risk of experiencing a mental disorder (approximately 42%; Gulliver et al., 2014) compared to the general population (approximately 20%).
- The results mostly supported the tenets of SPT. The SPT needs to be further studied in athletic populations as it appears that among athletes some mental disorders (i.e., eating disorders) may not correlate with the main components of the SPT.

**192 elite Canadian athletes completed the survey.**

$N = 78$  men's team competitors;  $M_{age} = 26$  years;  $N = 28$  preparing for the Paralympic Games;  $N = 26$  previously diagnosed with a mental disorder.

**Survey results indicated that 41.6% of athletes met criteria for one or more of depression, anxiety, and an eating disorder.**

**Comorbidity:** 27.7% of athletes met criteria for depression, moderate to severe anxiety, or an eating disorder, and 14% of athletes met the criteria for multiple disorders.

**Depression:** 33% reported subthreshold but clinically significant depression symptoms.

**Anxiety:** 17.8% of athletes met criteria for moderate to severe general anxiety.

**Eating Attitudes:** 7.6% reported scores indicating high risk of an eating disorder.

**Correlations:** Stress and training load were both statistically significant correlates of depression and anxiety, but not of eating disorders.