

P8158 - Final Project
Effects of Athletic Identity, Resilience, and
Healthy Lifestyle on Emotional Well-being during
COVID-19

Waveley Qiu, Yihan Qiu, Yuanyuan Zeng

2022-05-04

Motivation

- ▶ The onset of COVID-19 affected almost every sphere of work and leisure.
- ▶ We are interested in investigating the impact one's athletic identity may have on mental well-being, particularly as the context of a global pandemic may have dramatically impacted one's experience of playing a sport/being an athlete.

Resilience, Healthy Lifestyle, and Mental Health



Methodology

1. Conduct EFA and CFA to determine which observed variables underlie our latent variables of interest.
2. Evaluate reliability with Chronbach's alpha.
3. Create a SEM to quantify the relationship between our constructed latent variables and mental health score.

Data: Athlete Mental Healthy Survey

- ▶ Collected in the UK after their first COVID-19 lockdown
- ▶ Several surveys administered including: – Athletic Identity Scale (AIMS) – The Brief Resilience Scale – Mental Health Continuum Short Form (MHC-SF)
- ▶ In total, 753 individuals were interviewed (363 athletes and 390 non-athletes)

Latent Variable 1: Athletic Identity

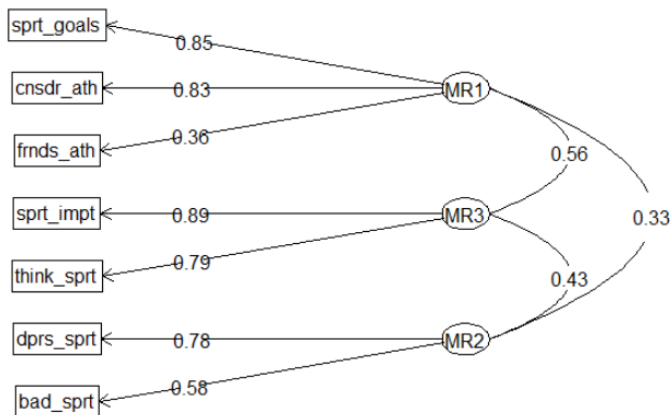
► Athletic Identity Scale (AIMS)

First Order Factors	AIMS Items
Social identity	
AIMS 1	I consider myself an athlete. CNSDR-ATH
AIMS 2	I have many goals related to sport. SPRT-GOALS
AIMS 3	Most of my friends are athletes. FRNDS-ATH
Exclusivity	
AIMS 4	Sport is the most important part of my life. SPRT-IMPT
AIMS 5	I spend more time thinking about sport than anything else. THINK-SPRT
Negative affectivity	
AIMS 6	I feel bad about myself when I do poorly in sport. BAD-SPRT
AIMS 7	I would be very depressed if I were injured and could not compete in sport. DPRS-SPRT

Note: Participants respond to the 7-items of the Athletic Identity Measurement Scale (AIMS) on a Likert-type scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*).

Latent Variable 1 (Athletic Identity): EFA

- ▶ Parallel component analysis recommends 2 components.
- ▶ EFA suggests the following latent variable structure:



Latent Variable 1 (Athletic Identity): EFA

The three latent variables underlying the AIMS variables are as follows:

- ▶ external_identity (comprised of `sprt_goals`, `cnsdr_ath`, `frnds_ath`)
- ▶ internal_value (comprised of `sprt_impt`, `think_sprt`)
- ▶ negative_events (comprised of `dprs_sprt`, `bad_sprt`)

The construct we are interested in is reflected in these three latent variables.

Latent Variable 2: Resilience

► The Brief Resilience Scale

Please respond to each item by marking <u>one box per row</u>		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
BRS 1	I tend to bounce back quickly after hard times <i>BOUNCE</i>	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
BRS 2	I have a hard time making it through stressful events. <i>STRESS-EVENT</i>	<input type="checkbox"/> 5	<input type="checkbox"/> 4	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1
BRS 3	It does not take me long to recover from a stressful event. <i>STRESS-RECOVER</i>	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
BRS 4	It is hard for me to snap back when something bad happens. <i>SNAP-BACK</i>	<input type="checkbox"/> 5	<input type="checkbox"/> 4	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1
BRS 5	I usually come through difficult times with little trouble. <i>DIFFICULT</i>	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
BRS 6	I tend to take a long time to get over set-backs in my life. <i>SETBACKS</i>	<input type="checkbox"/> 5	<input type="checkbox"/> 4	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1

Latent Variable 2 (Resilience): PCA

- ▶ Parallel component analysis recommended 1 component.

Latent Variable 3: Healthy Lifestyle

- ▶ Indicators of healthy lifestyle
 1. Five Fruit and Vegetables: Yes/No
 2. Smoking Status: 7-point Likert scale
 3. Hour Sleep: numerical variable
- ▶ Higher sum score indicates healthier lifestyle

Outcome Variable: Well-Being Composite Score

- ▶ The Mental Health Continuum Short Form (MHC-SF)
- ▶ Assess three components of well-being – Emotional – Social – Psychological
- ▶ Higher scores indicate greater levels of positive well-being (scores range from 0 to 70)

Discussion

Resources

1. Hu, T., Zhang, D., & Wang, J. (2014, December 13). A meta-analysis of the Trait Resilience and Mental Health. Personality and Individual Differences. <https://www.sciencedirect.com/science/article/pii/S0191886914006710>
2. Dale, H., Brassington, L., & King, K. (2014, March 5). The impact of healthy lifestyle interventions on Mental Health and Wellbeing: A systematic review. Mental Health Review Journal. <https://www.emerald.com/insight/content/doi/10.1108/MH-RJ-05-2013-0016/full/html>
2. <https://www.tandfonline.com/doi/full/10.1080/10413200802415048>
2. <https://measure.whatworkswellbeing.org/measures-bank/brief-resilience-scale/>
3. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7068432/#B17-ijerph-17-01265>
4. <https://www.hsph.harvard.edu/health-happiness/mental-health-continuum-short-form/>
5. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7147210/>