

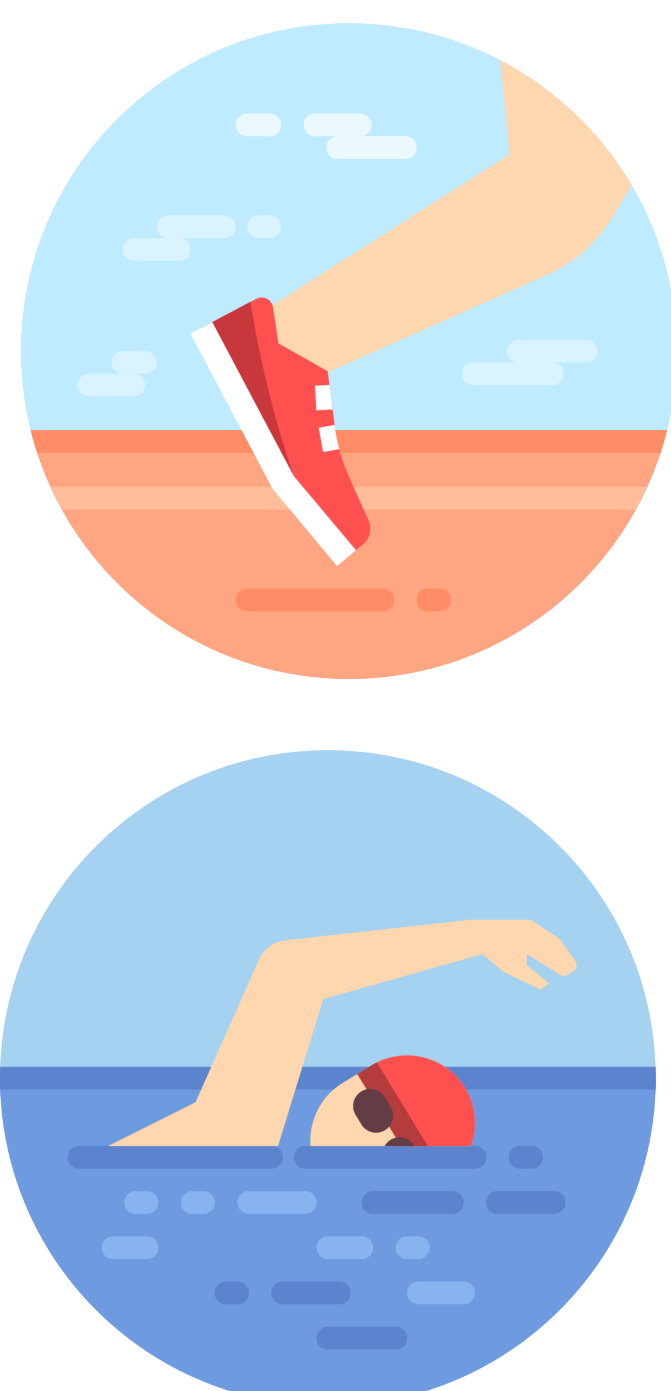
# PRELIMINARY CRITERION VALIDITY FOR THE ADULT-ORIENTED SPORT COACHING SURVEY (AOSCS)

DERRIK MOTZ<sup>1</sup>, SCOTT RATHWELL<sup>1</sup>, BRADLEY W. YOUNG<sup>2</sup>, MATT HOFFMANN<sup>2</sup>, CHELSEA CURRIE<sup>2</sup>, BETTINA CALLARY<sup>3</sup>

<sup>1</sup> UNIVERSITY OF LETHBRIDGE, <sup>2</sup> UNIVERSITY OF OTTAWA, <sup>3</sup> CAPE BRETON UNIVERSITY

## INTRODUCTION

- QUALITATIVE STUDIES HIGHLIGHT THE USE OF ADULT-ORIENTED COACHING AS AN ALTERNATIVE TO TRADITIONAL PEDAGOGICAL PRACTICES WHEN COACHING COMPETITIVE ADULT ATHLETES (I.E., MASTERS ATHLETES; CALLARY ET AL., 2017)
- STUDIES HAVE YET TO QUANTITATIVELY ASSESS ASSOCIATIONS BETWEEN VARIOUS ADULT-ORIENTED COACHING PRACTICES AND MAS' PSYCHOSOCIAL OUTCOMES



## PARTICIPANTS

- 402 MASTERS ATHLETES (MAS)
- $M_{AGE} = 55.91, SD = 10.41$
- MALE = 160, FEMALE = 239, OTHER = 3
- 21 DIFFERENT PRIMARY SPORTS: 38.8% SWIMMING, 23.9% ATHLETICS, 14.7% ROWING, 5.7% TRIATHLON
- MAS' AVERAGED 7.9HRS/WEEK INVESTED INTO THEIR SPORT

## MEASURES

- ADULT-ORIENTED SPORT COACHING SURVEY (AOSCS) (CALLARY ET AL., 2018; RATHWELL ET AL., 2019)
- BASIC NEEDS SATISFACTION IN SPORT SCALE (BNSSS) (NG ET AL., 2011)
- PSYCHOLOGICAL NEEDS THWARTING SCALE (PNTS) (BARTHOLOMEW ET AL., 2011)
- COACH-ATHLETE RELATIONSHIP QUESTIONNAIRE (CART-Q) (JOWETT & NTOUMANIS, 2004)
- FOUR SINGLE ITEMS ON SPORT COMMITMENT, INVESTMENT, & LIKING

Table 1. First and second order structural equation models.

	AOSCS (2 <sup>nd</sup> Order)	Considering the Individuality of Athletes	Framing Learning Situations	Imparting Coaching Knowledge	Respecting Preferences for Effort, Accountability, & Feedback	Creating Personalized Programming
Needs Thwarting <b>Autonomy</b>	-.362**	-.410**	.309*	-.036	-.433*	.165
Needs Thwarting <b>Competence</b>	-.222**	-.238	.384*	-.002	-.370*	-.015
Needs Thwarting <b>Relatedness</b>	-.107	-.119	.249	-.012	-.164	-.072
Basic Needs Satisfaction <b>Relatedness</b>	.148*	-.11	.005	-.026	.188	.095
Basic Needs Satisfaction <b>Autonomy IPLOC</b>	.357**	.426*	-.271	.069	.248	-.065
Basic Needs Satisfaction <b>Autonomy (Volition)</b>	.199**	.433**	-.368	.093	.253	-.173
Basic Needs Satisfaction <b>Autonomy (Choice)</b>	.324**	-.006	-.075	.142	.436*	-.125
Basic Needs Satisfaction <b>Competence</b>	.256**	-.051	.105	-.066	.299	-.021
Coach-Athlete Relationship <b>Commitment</b>	.796**	.158	.055	.109	.138	.403**
Coach-Athlete Relationship <b>Closeness</b>	.624**	.316*	-.128	.138	.368*	.007
Coach-Athlete Relationship <b>Complementarity</b>	.640**	.223	.025	-.011	.374*	.077
Because of my coach... <b>I like to go to practice</b>	.524**	.136	-.010	.022	.464*	-.044
Because of my coach... <b>I want to invest more in my sport</b>	.599**	-.048	.280	.011	.128	.275
<b>I am committed</b> to keep doing my sport	.216**	.012	.105	.001	.127	-.007
<b>I find participating</b> in my sport to be enjoyable	.223**	-.108	.120	.010	.144	.075

Note: \* $p < .05$ , \*\* $p < .01$

## ADULT-ORIENTED SPORT COACHING SURVEY

FIVE VALID COACHING PRINCIPLES (CALLARY ET AL., 2018; RATHWELL ET AL., 2019)

### CONSIDERING THE INDIVIDUALITY OF ATHLETES:

THE COACH CONSIDERS AND TAILORS HIS/HER APPROACH TO EACH ADULT ATHLETE'S EXPERIENCES AND MOTIVES IN THE PLANNING, ORGANIZATION, AND DELIVERY OF PRACTICE.

### FRAMING LEARNING SITUATIONS:

THE COACH FRAMES LEARNING SITUATIONS FOR HIS/HER ADULT ATHLETES THROUGH SELF-DISCOVERY, PROBLEM-BASED SCENARIOS, MODELING, AND ASSESSMENTS.

### IMPARTING COACHING KNOWLEDGE:

THE COACH ENRICHES THE LEARNING ENVIRONMENT BY SHARING HIS/HER OWN RELEVANT ATHLETIC EXPERIENCE, COACHING KNOWLEDGE, AND PROFESSIONAL COACHING DEVELOPMENT.

### RESPECTING PREFERENCES FOR EFFORT, ACCOUNTABILITY, AND FEEDBACK:

THE COACH ADAPTS HIS/HER APPROACH BY CONSIDERING HOW EACH ADULT ATHLETE WISHES TO BE HELD ACCOUNTABLE FOR WORKING HARD AND GIVING EFFORT, AND HOW THEY WISH TO RECEIVE FEEDBACK AT PRACTICE.

### CREATING PERSONALIZED PROGRAMMING:

THE COACH CONSIDERS AND TAILORS ASPECTS OF SCHEDULING (PRACTICES AND COMPETITIONS), SEASON-LONG PROGRAMMING, AND COACHING SUPPORT AT COMPETITIONS, TO EACH ADULT ATHLETE'S NEEDS AND ABILITIES.

## DATA ANALYSES

### CONFIRMATORY FACTOR ANALYSES

AOSCS:  $\chi^2(183) = 359.84, P < .001, CFI = .956, RMSEA = .045, SRMR = .039$

BNSSS:  $\chi^2(160) = 400.42, P < .001, CFI = .908, RMSEA = .061, SRMR = .065$

PNTS:  $\chi^2(51) = 70.56, P < .001, CFI = .983, RMSEA = .031, SRMR = .041$

CART-Q:  $\chi^2(41) = 118.56, P < .001, CFI = .950, RMSEA = .068, SRMR = .039$

### STRUCTURAL EQUATION MODELING

AOSCS → BNSSS/PNTS:  $\chi^2(1299) = 2169.29, P < .001, CFI = .913, RMSEA = .041, SRMR = .054$

AOSCS → CART-Q:  $\chi^2(467) = 805.18, P < .001, CFI = .946, RMSEA = .042, SRMR = .045$

AOSCS → 4 SINGLE ITEMS:  $\chi^2(267) = 445.06, P < .001, CFI = .959, RMSEA = .041, SRMR = .036$

## RESULTS & DISCUSSION

- THE SECOND ORDER MODELS INDICATE SIGNIFICANT AND POSITIVE ASSOCIATIONS BETWEEN THE AOSCS AND THE BNSSS, CART-Q, AND SINGLE ITEMS (I.E., MAS' SPORT COMMITMENT, INVESTMENT, ENJOYMENT, AND LIKING OF THEIR COACH)
- THE FIRST ORDER MODELS INDICATE SIGNIFICANT POSITIVE AND NEGATIVE ASSOCIATIONS BETWEEN SOME OF THE FACTORS IN THE AOSCS AND THE BNSSS, PNTS, AND THE CART-Q. NEGATIVE ASSOCIATIONS WERE FOUND WITH THE PNTS.
- SUPPORTS PREVIOUS QUALITATIVE RESEARCH THAT SUGGESTS ADULT ATHLETES BENEFIT FROM ADULT-ORIENTED COACHING PRACTICES (CALLARY ET AL., 2017)
- ADULT-ORIENTED COACHING PRACTICES ARE POSITIVELY RELATED TO ENHANCED COACH-ATHLETE RELATIONSHIPS, BASIC NEEDS SATISFACTION, AND MAY PROMOTE SPORT COMMITMENT AND LIKING IN MAS
- RESULTS SHOW INITIAL CRITERION VALIDITY COMPLEMENTING PRIOR WORK ON CONTENT (CALLARY ET AL., 2017) AND FACTORIAL VALIDITY (RATHWELL ET AL., 2019)