National Survey of Canadian High School Teacher-Coaches: National Report

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For:
School Sport Canada

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1. Introduction

Youth development research has examined the antecedents, processes, and outcomes that occur in contexts such as community programs, schools, and sport. One common finding that consistently emerges is that influential adults, such as teachers and coaches, play instrumental roles in facilitating the developmental process. Most of the past research on teachers and coaches has examined these two roles in isolation but in the high school context, teachers often volunteer to coach sports teams, thus assuming the dual role of teacher-coach. To date, very few studies have explored the benefits and challenges associated with being a high school teacher-coach. To help fill the knowledge gap in this area of research, Dr. Martin Camiré from the University of Ottawa's School of Human Kinetics received a two-year (2014-2015) Insight Development Grant from the Social Sciences and Humanities Research Council (SSHRC; 862-2013-0007; $43,641) to examine the status of high school teacher-coaches in Canada. With this grant, a two-phased research program was created. The present report presents the findings of the second phase of the research, which consisted of a comprehensive national survey. A brief summary of phase one findings is offered to set the stage for phase two.

1.1. Summary of Phase One

1.1.1. Methods

Data collection for phase one occurred in April and May of 2013 with ethical approval from the University of Ottawa's Office of Research Ethics and Integrity. A sample of 25 teacher-coaches (20 men, 5 women, M_{age} = 37.0 years, range 25-56) was recruited from three regions in Ontario: National Capital Region (*n* = 12), Greater Toronto Area (*n* = 8), and Northern Ontario (*n* = 5). The teacher-coaches had on average 11.4 years of teaching experience and 11.1 years of coaching experience. Nineteen teacher-coaches had National Coaching Certification Program (NCCP) training (Level 1 = 5, Level 2 = 6, Level 3 = 8). The most common sports coached were volleyball (n = 16) and basketball (*n* = 13). Twenty-one teacher-coaches indicated having coached multiple sports over their careers and 20 reported having coached both boys and girls.

The teacher-coaches participated in audio-recorded, individual semi-structured interviews (*M* = 69.8 minutes, range 50-102 minutes) conducted in person by Dr. Camiré. The interviews followed an interview guide comprised of five sections. The first section contained questions about the teacher-coaches' motivations to teach and coach. In the second section, teacher-

coaches were asked about their approaches to teaching and coaching (i.e., teaching/coaching philosophy). The third section pertained to understanding the dual role of being a teacher-coach and how they the participants built relationships with their student-athletes. The fourth and fifth sections, respectively, contained questions on the benefits and challenges associated with having the dual role of teacher-coach. Interviews were transcribed verbatim; resulting in 478 single-spaced pages, which were analyzed using thematic analysis procedures (Braun & Clarke, 2006).

1.1.2. Findings from Phase One

The findings of phase one were published in two peer-reviewed articles, the first focusing on relationship-building with student-athletes (Camiré, 2015a) and the second on the challenges associated with the dual role of teacher-coach (Camiré, 2015b). Findings from the first article were organized into three broad themes. First, being a teacher-coach influenced relationship-building with student-athletes as having a dual role was deemed to facilitate interactions, especially those that occur outside of the classroom context. These out of classroom interactions were perceived to give teacher-coaches greater credibility and a certain *cool factor* as a result of their involvement in sport. The dual role facilitated relationship-building in part because both teacher-coaches and student-athletes participated in high school sport voluntarily, which fostered greater intrinsic motivation and created a positive motivational climate. Additionally, teacher-coaches discussed how sport presents a less formal and more emotionally invested setting than a classroom, allowing teacher-coaches to connect with student-athletes on a more personal level and create solid bonds.

Second, the teacher-coaches provided a series of strategies to build relationships in a responsible and nurturing way. It was important for teacher-coaches to interact with all of their student-athletes, regardless of athletic ability, on issues occurring beyond the sport context. Within sport, teacher-coaches tried to minimize their authoritative role by including student-athletes in decisions and providing rationale for coaching decisions. Furthermore, teacher-coaches discussed the importance of planning preseason team meetings, organizing team dinners, having student-athletes reflect on their performances, and holding study hall sessions.

Third, the teacher-coaches discussed the positive outcomes that derived from building relationships. The teacher-coaches reported how being both a teacher and a coach provided them with numerous positive experiences that counter-balanced the challenges often encountered in the classroom (e.g., discipline issues). These positive experiences were said to contribute to

increased job satisfaction. Additionally, their dual role impacted their identity perceptions with the majority choosing to identify as a teacher-coach rather than just a teacher. The teacher-coaches also reported benefits for student-athletes as a result of building relationships. Many of these benefits involved helping student-athletes deal with issues in their personal lives, including parental separation, substance abuse, and suicidal thoughts.

The second article focused on the challenges associated with being a teacher-coach. In this study, teacher-coaches reported issues with time, administrative tasks, colleagues, and logistics. In regards to time, some teacher-coaches discussed how taking on coaching as an additional commitment had negative impacts on their personal lives as the long hours made it difficult to spend quality time with family members. Additionally, some teacher-coaches described getting fatigued and sick as a result of overworking. Administrative issues (e.g., large amounts of paperwork required to travel to tournaments) and logistical issues (e.g., traveling to games and tournaments) caused significant stress for teacher-coaches. Finally, teacher-coaches also reported issues with colleagues, particularly those not involved in extra-curricular activities, who complained about having to supply teach when the teacher-coaches travelled for tournaments. Additional issues involved being asked to intervene when a student-athlete misbehaved in a colleague's class.

The teacher-coaches provided a number of recommendations to help address the challenges they faced. For time issues, the teacher-coaches suggested reducing teaching loads or replacing internal supply teaching duties with additional preparation periods. For administrative issues, the teacher-coaches recommended streamlining administrative tasks or designating an individual in the school (administrative assistant) responsible for carrying out administrative tasks. For colleague issues, integrating sport into the school curriculum was deemed a worthy option as it would place sport on the same priority level as other subjects. For logistical issues, the teacher-coaches recommended easing access to NCCP coach education through increased online education opportunities or making better use of professional development days. Additionally, enlisting greater parental assistance was also suggested as a way to ease transportation issues, especially in isolated rural areas. Finally, although some teacher-coaches were in favor of greater financial compensation, the majority believed it would negatively impact the quality of student-athletes athletic experiences by drawing in individuals who do not have a genuine passion for sport.

1.2. Phase Two Procedure

1.1.3. Survey Development & Distribution

Based on the findings from phase one, a need for a national survey of Canadian teacher-coaches was identified. To this end, Dr. Camiré created the Teacher-Coach Survey, using the Fluid Survey software as its online platform. To be eligible to complete the survey, the participants had to meet four criteria: (a) be a full-time teacher at a Canadian school in 2014-2015, (b) be the head or assistant coach of a high school sport team in 2014-2015, (c) have at least one year of experience as a teacher, and (d) have at least one year of experience as a high school coach. The Teacher-Coach Survey consisted of three main sections. The first section was focused on gathering the participants' demographic information (e.g., age, gender, teaching and coaching experience, teaching area, school population, NCCP certification). The second section consisted of questions which were developed based on findings from phase one. For example, the challenges and recommendations documented in phase one were used to develop survey questions measured using 7-point Likert scales. The third section included three previously developed and validated instruments: (a) The Coach-Athlete Relationship Questionnaire (CART-Q; Jowett & Ntoumanis, 2004), (b) the Teaching Satisfaction Scale (TSS; Ho & Au, 2006), and (c) the Coaching Efficacy Scale II for High School Teams (CES-HST; Myers et al., 2008).

The CART-Q is an 11-item instrument composed of three subscales measuring (a) closeness, (b) commitment, and (c) complementarity between coaches and athletes. Respondents indicate their level of agreement for statements (e.g., I feel committed to my athletes) on a scale from 1 (*Strongly* disagree) to 7 (*Strongly* agree). The CART-Q has been shown to be a valid and reliable measure for a variety of populations, including youth sport (Vierimaa et al., 2012). The TSS is a 5-item scale developed to assess the teaching satisfaction of primary and secondary school teachers. The items assess intrinsic (e.g., Being a teacher is close to my ideal) and extrinsic (e.g., My conditions of being a teacher are excellent) factors of satisfaction on a scale from 1 (*Strongly disagree*) to 5 (*Strongly agree*). The TSS has been shown to be a valid and reliable measure of job satisfaction among teachers. The CES II-HST is an 18-item scale adapted from the original Coaching Efficacy Scale (Feltz et al., 1999) that specifically applies to the context of high school sport. Coaching efficacy refers to "the extent to which a coach believes he or she has the capacity to affect the learning and performance of his or her athletes" (Myers et al., 2008, p. 1060). Respondents are asked to rate their level of efficacy on a scale from 1 (*Low*

confidence) to 4 (*Complete confidence*). The scale has five subscales, the first of which (motivation) pertains to coaches' beliefs in their capacity to motivate their athletes. The second subscale (game strategy) pertains to coaches' beliefs in their ability to teach strategic elements to their athletes and implement the correct strategies in game situations. The third subscale (technique) deals with coaches' capacity to teach techniques to their athletes. The fourth subscale (character development) provides a measure of coaches' beliefs in their ability to facilitate the positive character development of their athletes. The final subscale (physical development) relates to coaches' beliefs in their ability to improve the physical conditioning of their athletes. The initial development and validation study of the CES II-HST (Myers et al., 2008) provided strong evidence of validity for the revised scale.

The initial version of the Teacher-Coach Survey was completed in March 2014 and was forwarded to Provincial Executive Directors for them to provide input. Their feedback was integrated and Dr. Camiré presented a revised version of the Teacher-Coach Survey at School Sport Canada's Annual General Assembly in Saskatoon (September 2014) where it received final approval. The Teacher-Coach Survey launched nationally in early October 2014. In November, 2014, Tyler Callaghan, from the Canadian Interscholastic Athletic Administrator Association (CIAAA) was brought on board to act as a survey coordinator and encourage wider dissemination. At School Sport Canada's Director's Meeting in Ottawa (January 2015), Dr. Camiré presented a dissemination progress report and encouraged Provincial Executive Directors to do a final recruitment push. Data collection concluded in late February 2015 with a total of 3357 respondents.

1.1.4. Data Cleaning & Analysis

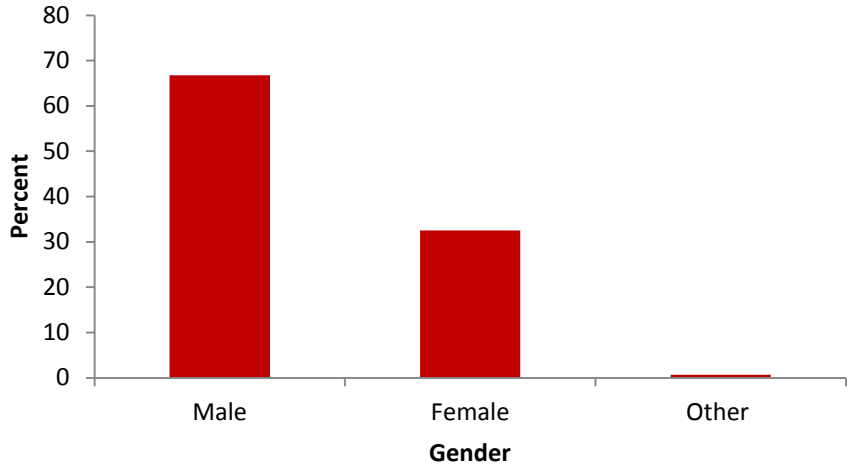
Colin Deal, a graduate student at the University of Ottawa, was hired as a research assistant to clean the raw data. First, the data were screened to ensure each participant met the inclusion criteria of having a minimum of one year of teaching and coaching experience. If respondents indicated otherwise, they were removed from the data set. Irregular responses to demographic questions were then screened and changed to a numerical format (e.g., 'Thirty-eight' was changed to '38' when referring to age). Finally, participants who started the survey but failed to respond to any questions beyond the demographics section were excluded from the data set. The final sample carried forward for analysis consisted of 3065 participants.

Meredith Rocchi, a graduate student at the University of Ottawa, was hired as a research assistant to conduct statistical analyses. Preliminary analysis consisted of calculating descriptive statistics and frequencies analyses for demographic variables. Subsequent analyses focused on relationships between variables using inferential statistical analyses including chi-square (e.g., Are there gender differences relating to NCCP training status?), t-tests (e.g., Do more experienced teacher-coaches report less severe challenges than less experienced teacher-coaches?), and bivariate correlations (e.g., Is there a relationship between teacher-coaches' age and the number of hours per week invested in coaching?). Repeated measures ANOVAs were conducted to identify the most prominent challenges and recommendations. Colin Deal, with the assistance of Trevor Moore, an undergraduate student at the University of Ottawa, prepared the tables and interpretive paragraphs presented in the current report.

2. Results

2.1. Gender

Gender	Frequency	Percent
Male	2046	66.8
Female	998	32.5
Other	21	0.7
N =	3065	



Two-thirds of respondents to the Teacher-Coach Survey identified as male (66.8%) and one-third as female (32.5%). Twenty-one participants chose to self-identify as either male to female transgender, female to male transgender, or other. Participants who self-identified as genders other than male or female were excluded from further gender-based analyses because the group was too small to make meaningful comparisons with the other two groups.

2.1.1. Relationship between Gender and NCCP Training Status

		Gender		
		Male	Female	Total
NCCP Trained	Yes	1536^{+}	643*	2179
	No	466*	319^{+}	785
	I don't know	42	36	78
	Total	2044	998	3042

Note: $^{+}$significantly more than expected; *significantly less than expected

A chi-square analysis showed that men were more likely to have completed NCCP training and women were less likely to have completed NCCP training ($\chi^2_{(2)} = 38.89$, $p < .001$, Cramer's V = .113). Although the results are statistically significant, gender had an overall weak effect on NCCP training status; thus, NCCP training seems to be accessed by teacher-coaches at approximately the same frequencies regardless of gender.

2.1.2. Relationship between Gender and Coaching Experience

Gender	***N***	***M* (years)**	***SD***	**t-statistic**	**Sig.**
Male	2040	14.7	8.97	9.39	$p < .001$
Female	995	11.5	8.58		
N =	3035				

Coaches with 10+ Years of Coaching Experience

Gender	***N***	***M* (years)**	***SD***	**t-statistic**	**Sig.**
Male	1370	19.2	7.43	1.90	$p = .057$
Female	484	18.5	7.09		
N =	1854				

Overall, the results show a statistically significant difference as male teacher-coaches were more experienced than female teacher-coaches. However, this difference had a small effect size and only accounted for approximately 3% of the variance between genders, meaning that gender had a very small influence on a teacher-coach's level of coaching experience. Furthermore, when teacher-coaches with over 10 years of coaching experience were compared in regards to gender, no statistical difference was found, meaning that experienced teacher-coaches (i.e., with over 10 years of coaching experience) have similar levels of coaching experience, regardless of their gender.

2.1.3. Relationship between Gender and Number of Sports Coached

Gender	***N***	***M***	***SD***	**t-statistic**	**Sig.**
Male	2014	2.09	1.11	1.55	$p = .065$
Female	983	2.03	1.06		
N =	2997				

A t-test indicated that there were not any statistically significant differences between male and female teacher-coaches in regards to the number of sports teams coached. Therefore, gender as a variable does not explain differences in number of sports coached.

2.1.4. Relationship between Gender and Type of Team(s) Coached

		Gender		
		Male	Female	Total
Type of Team(s)	Boys	726^{+}	69*	795
	Girls	257*	365^{+}	622
	Both	765	346	1111
	Co-ed	264*	203^{+}	467
	Total	2012	983	2995

Note: $^{+}$significantly more than expected; *significantly less than expected

A chi-square analysis ($\chi^2_{(3)} = 424.27$, $p < .001$, Cramer's V = .376) indicated that male teacher-coaches were more likely to coach boys while female teacher-coaches were more likely to coach girls. There were no significant differences between males and females in terms of coaching both genders (i.e., coaching a boys' team and a girls' team). A marginally significant difference was found for co-ed, indicating female teacher-coaches were more likely to coach co-ed teams. Overall, teacher-coaches are more likely to coach same sex athletes than they are to coach student-athletes of the other sex.

2.1.5. Relationship between Gender and Time Invested in Coaching

Gender	***N***	***M* (hours)**	***SD***	**t-statistic**	**Sig.**
Male	1987	14.5	7.85	8.329	$p < .001$
Female	963	12.2	6.66		
N =	2950				

There was a statistically significant difference found, indicating that male teacher-coaches were investing more hours per week into coaching on average than female teacher-coaches. However, this difference had a small effect size and only accounted for 2.5% of the variance in reported coaching time. Thus, gender is not a good predictor of the amount of time teacher-coaches invest in their coaching duties.

2.1.6. Relationship between Gender and Identity Status

		Gender		
		Male	Female	Total
Identity	Teacher	344*	258+	602
	Teacher-Coach	1462+	657*	2119
	Coach	90+	19*	109
	Total	1896	934	2830

Note: +significantly more than expected; *significantly less than expected

In regard to identity, participants were asked to choose which of three options they most closely identified as. A chi-square analysis ($\chi^2_{(2)} = 42.23$, $p < .001$, Cramer's V = .122) showed that male teacher-coaches were more likely to identify as a teacher-coach or a coach compared to female teacher-coaches and less likely to identify as a teacher. However, while these differences were statistically significant, the overall effect of gender on identity was weak. This means that gender does not play a big role in explaining how teacher-coaches self-identify.

2.1.7. Relationship between Gender and Dealing with Student Issues

Issue	Gender	*M*	*SD*
Alcohol and Drug Issues	Male	5.32	1.37
	Female	5.23	1.45
Boyfriend/Girlfriend Issues	Male	4.91	1.44
	Female	5.24	1.41
Bullying and/or Cyber-Bullying	Male	5.29	1.34
	Female	5.28	1.39
Financial Difficulties	Male	4.62	1.55
	Female	4.71	1.57
Parental Alcohol/Drug Issues	Male	4.63	1.53
	Female	4.73	1.53
Parental Divorce/Separation	Male	4.75	1.52
	Female	4.94	1.46
Physical/Sexual/Emotional Abuse	Male	4.55	1.57
	Female	4.75	1.51
Self-Esteem/Self-Confidence Issues	Male	5.65	1.25
	Female	5.75	1.22
Suicidal Tendencies	Male	4.58	1.59
	Female	4.77	1.54
Non-Desired Pregnancies	Male	4.16	1.71
	Female	4.61	1.63

N = 2740

The participants were asked to state the degree to which they believe their role as a teacher-coach allows them to help students dealing with ten different types of issues. By examining the means, it appears that female teacher-coaches are generally more comfortable dealing with student issues. However, results from a mixed factorial ANOVA indicated that this gender trend, although statistically significant, explained less than 1% of the variance in reported confidence. Therefore, it does not represent a practical difference between male and female teacher-coaches as they share very similar levels of confidence in dealing with such matters.

2.1.8. Relationship between Gender and Challenges Faced

Challenge	Gender	% Yes	*M* Extent	*SD*
Being asked to help with class discipline	Male	71.9	5.03	1.74
	Female	60.4	4.38	1.90
Competing against community sports clubs	Male	66.1	5.08	1.86
	Female	59.9	4.88	1.96
Competing against 'sport schools'	Male	66.7	5.14	1.85
	Female	63.0	4.96	2.00
Cutting students from your sport team(s)	Male	78.4	5.14	1.79
	Female	79.8	5.28	1.69
Dealing with students perceived as 'entitled'	Male	85.5	5.17	1.58
	Female	87.2	5.20	1.66
Dealing with parents	Male	86.2	5.00	1.62
	Female	89.6	5.14	1.65
Interacting students wanting to be friends	Male	75.0	4.24	1.68
	Female	74.7	4.24	1.76
Meeting your family obligations	Male	89.9	5.78	1.43
	Female	89.6	5.82	1.41
Accessing coach education courses	Male	80.7	4.77	1.68
	Female	79.9	4.82	1.76
Receiving recognition as a coach	Male	80.4	4.64	1.84
	Female	80.5	4.84	1.81
Receiving support from colleagues	Male	84.1	4.67	1.77
	Female	82.0	4.74	1.74
Receiving support from school	Male	82.3	4.54	1.91
	Female	82.5	4.69	1.82
Managing your time	Male	90.9	5.56	1.47
	Female	92.1	5.58	1.49
Ensuring transportation	Male	81.6	5.35	1.65
	Female	85.7	5.47	1.61
Managing administrative tasks	Male	89.2	5.70	1.40
	Female	89.9	5.72	1.42

N = 2740

The participants were asked to state the degree to which they believe they are confronted with challenges (15) because of their role as a teacher-coach. Male and female teacher-coaches did not differ in terms of number of challenges reported. However, men were more likely to report being asked by colleagues to discipline their student-athletes and competing against community clubs as challenges. Further analysis using a mixed factorial ANOVA indicated that gender did not have a statistically significant effect on the extent to which challenges were perceived by teacher-coaches. This means that male and female teacher-coaches perceived challenges at very similar levels.

2.1.9. Relationship between Gender and Recommendations

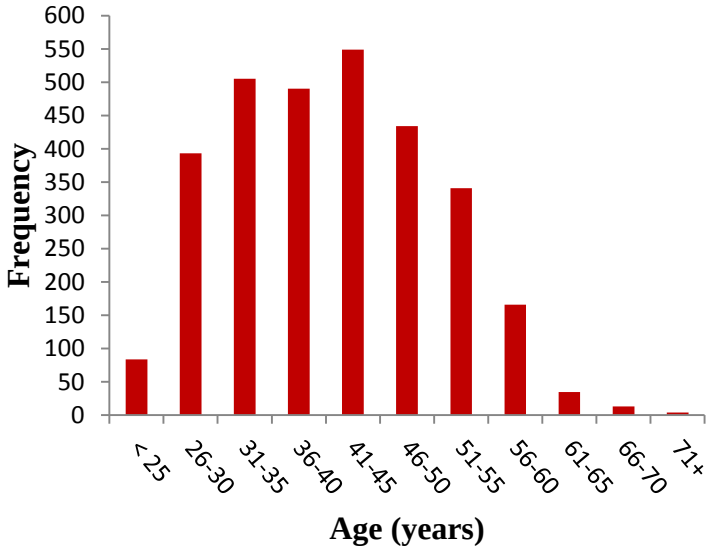
Recommendation	Gender	Usefulness		Feasibility	
		M	***SD***	***M***	***SD***
Being compensated in time for coaching	Male	5.93	1.62	3.23	2.06
	Female	5.99	1.63	2.88	1.98
Being compensated financially for coaching	Male	5.29	1.99	2.48	1.87
	Female	5.19	20.9	2.20	1.73
Having a daycare on school premises	Male	3.49	2.36	2.55	1.94
	Female	3.64	2.46	2.33	1.88
Reducing the administrative tasks	Male	5.33	1.79	3.36	1.82
	Female	5.28	1.86	3.01	1.78
Designating a person to manage the administrative tasks	Male	5.60	1.73	3.95	2.02
	Female	5.49	1.86	3.65	1.97
Receiving more resources for sport from the school board	Male	5.84	1.60	3.30	1.96
	Female	5.78	1.68	3.18	1.87
Integrating sport in the school's curriculum	Male	5.49	1.73	3.93	1.95
	Female	5.40	1.80	3.80	1.95
Recognizing coach education as professional development	Male	6.25	1.28	4.77	1.98
	Female	6.24	1.34	4.59	1.91
Offering coach education courses at school during PA days	Male	5.23	1.31	4.48	2.13
	Female	6.22	1.37	4.30	2.09
Offering coach education courses on the internet	Male	5.47	1.76	5.28	1.74
	Female	5.21	1.99	5.02	1.86
Having the school cover fees for coach education courses	Male	6.40	1.14	4.45	2.18
	Female	6.42	1.18	4.00	2.19

N = 2740

The participants were asked to state the degree to which they believe the 11 recommendations listed would help alleviate their challenges. For each statement, the participants had to provide a rating for usefulness and feasibility. In terms of the usefulness and feasibility of recommendations, there were no differences between male and female teacher-coaches.

2.2. Age

N	*M* (years)	*SD*	Minimum	Maximum
3014	41.07	9.56	19	77



The teacher-coaches displayed an approximately normal distribution of ages with a mean age of 41 years (*SD* = 9.56).

2.2.1. Relationship between Age and NCCP Training Status

NCCP Training	*M* (years)	*SD*
Yes	42.16	9.28
No	38.42	9.81
I don't know	37.55	8.68

N = 3012

		Age					
		20s	30s	40s	50s	60s	Total
NCCP Training	Yes	205*	650*	789+	450+	60	2154
	No	171+	280	191*	122	15	779
	I don't know	15	31	24	5	2	77
	Total	391	961	1004	577	77	3010

Note: +significantly more than expected; *significantly less than expected

An ANOVA ($F_{(2, 3009)} = 50.99$, $p < .001$) showed the teacher-coaches with NCCP training tended to be older than those without training and those who were unsure. However, this association accounted for only 4% of the variance, meaning that age does not explain much of the differences observed in the NCCP training status of teacher-coaches. When grouped by age, it was shown that teacher-coaches in their 40s and 50s were more likely to have NCCP training than those in their 20s or 30s.

2.2.2. Relationship between Age and Number of Sports Coached

Number of Teams Coached	*N*	*M* (years)	*SD*	t-statistic	Sig.
One	1111	41.7	9.69	2.97	$p = .003$
Two or more	1856	40.6	9.41		
N =	2967				

There was a very weak, negative relationship between age and number of sports coached ($\tau_{(3915)} = -.042$, $p = .003$). Further examination found no statistically significant differences between the number of sports coached in reference to teacher-coaches' age. However, when the ages of teacher-coaches coaching a single team were compared to those coaching two or more teams, a small statistically significant difference was found. This difference was of no practical significance as it only accounted for 1% of the variance in the number of sports coached.

2.2.3. Relationship between Age and Time Spent Coaching

There was no discernible relationship between teacher-coach age and the average number of hours invested in coaching per week ($r = .011$, $p = .569$). This suggests that irrespective of their age, teacher-coaches tend to invest the same amount of time in their coaching duties.

2.2.4. Relationship between Age and Challenges

Challenge	% Yes			
	20s	30s	40s	50+
Being asked to help with class discipline	59.1	69.9	70.0	63.7
Competing against community sports clubs	59.1	60.3	66.0	63.8
Competing against 'sport schools'	67.1	64.3	64.5	68.5
Cutting students from your sport team(s)	81.5	79.9	77.5	77.7
Dealing with students perceived as 'entitled'	90.0	86.9	86.1	83.2
Dealing with parents	92.4	88.2	86.5	84.4
Interacting students wanting to be friends	86.6	76.6	72.4	69.6
Meeting your family obligations	89.3	91.7	92.2	83.6
Accessing coach education courses	85.3	82.2	80.9	74.0
Receiving recognition as a coach	87.8	82.8	80.4	73.3
Receiving support from colleagues	87.3	84.7	84.0	78.7
Receiving support from school	83.9	84.1	82.1	79.6
Managing your time	93.9	91.8	92.1	87.9
Ensuring transportation	85.9	82.6	84.5	79.9
Managing administrative tasks	91.5	89.2	89.9	88.0

N = 2645

		Age				
		20s	30s	40s	50+	Total
Interacting with students who want to be your friend?	Yes	285^{+}	649	649	398*	1981
	No	44*	198	247	174^{+}	663
	Total	329	847	896	572	2644

Note: $^{+}$significantly more than expected; *significantly less than expected

		Age				
		20s	30s	40s	50+	Total
Meeting family obligations?	Yes	292	778	824	480	2374
	No	35	70	70	94	269
	Total	327	848	894	574	2643

Note: $^{+}$significantly more than expected; *significantly less than expected

Overall, teacher-coaches of all ages reported challenges with similar frequencies. However, teacher-coaches in their 20s and 30s were more likely to report having students who want to be friends as a challenge than older teacher-coaches ($\chi^2_{(3)} = 36.94$, $p < .001$**,** Cramer's V = .118). Additionally, there were some age differences in regards to meeting family obligations, with teacher-coaches in their 20s and 30s reporting this challenge more frequently than expected and teacher-coaches 50+ reporting it less frequently than expected.

Challenge	20s		30s		40s		50+	
	M	***SD***	***M***	***SD***	***M***	***SD***	***M***	***SD***
Being asked to help with class discipline	4.70	1.75	4.82	1.82	4.96	1.80	4.51	1.85
Competing against community sports clubs	4.81	1.76	5.09	1.88	5.00	1.90	5.05	1.97
Competing against 'sport schools'	5.11	1.76	5.09	1.90	5.03	1.94	5.12	1.91
Cutting students from your sport team(s)	5.12	1.70	5.13	1.73	5.18	1.78	5.32	1.78
Dealing with students perceived as 'entitled'	5.23	1.50	5.16	1.60	5.14	1.63	5.22	1.64
Dealing with parents	5.17	1.64	4.99	1.60	5.05	1.62	5.07	1.69
Interacting students wanting to be friends	4.81	1.53	4.21	1.64	4.06	1.72	4.16	1.80
Meeting your family obligations	5.47	1.49	5.98	1.30	5.91	1.38	5.50	1.56
Accessing coach education courses	4.80	1.60	4.85	1.63	4.85	1.76	4.58	1.78
Receiving recognition as a coach	4.74	1.71	4.85	1.74	4.65	1.89	4.52	1.94
Receiving support from colleagues	4.75	1.72	4.73	1.71	4.61	1.78	4.74	1.83
Receiving support from school	4.56	1.82	4.60	1.81	4.55	1.93	4.66	1.95
Managing your time	5.47	1.48	5.64	1.43	5.62	1.45	5.43	1.58
Ensuring transportation	5.34	1.64	5.38	1.60	5.37	1.68	5.43	1.68
Managing administrative tasks	5.50	1.42	5.74	1.35	5.78	1.40	5.66	1.47

N = 2640

In terms of the extent of the challenges reported, differences were observed between age groups for (a) students wanting to be friends and (b) meeting family obligations. Teacher-coaches in their 20s reported students wanting to be friends to be a greater challenge than teacher-coaches in the other age groups. In regards to meeting family obligations, teacher-coaches in their 30s and 40s perceived this challenge to a greater extent than younger (i.e., 20s) and older (i.e., 50+) teacher-coaches.

There was a small, but statistically significant negative relationship between age and total challenges reported, suggesting that challenges become less of a concern as teacher-coaches get older ($r = -.09$, $p < .01$). However, this relationship is weak and generally, challenges are reported rather consistently throughout the lifespan.

2.2.5. Relationship between Age and Recommendations

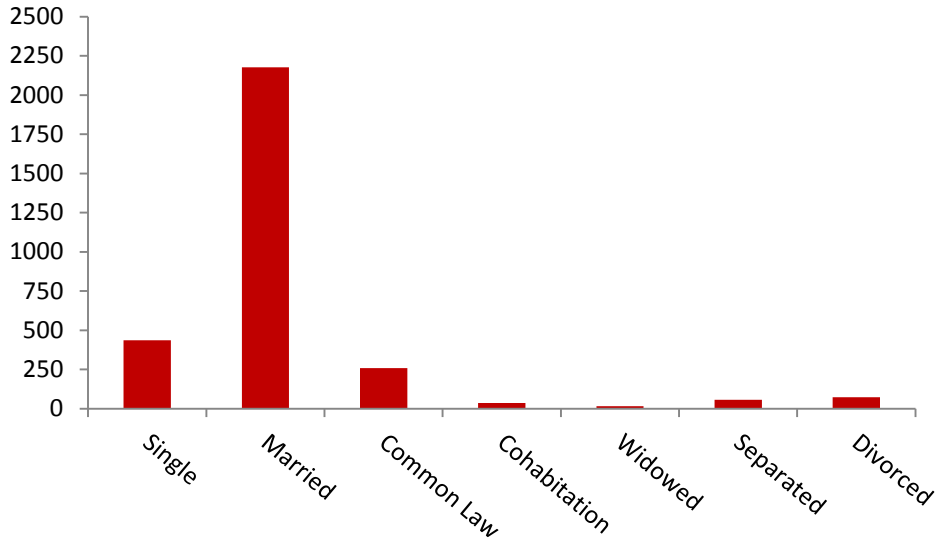
Recommendation	Age	
	Usefulness	**Feasibility**
Being compensated in time for coaching	-.163**	-.110**
Being compensated financially for coaching	-.139**	-.092**
Having a daycare on school premises	-.185**	-.074**
Reducing the administrative tasks	-.058**	-.061**
Designating a person to manage the administrative tasks	-.033	-.039
Receiving more resources for sport from the school board	.009	-.113**
Integrating sport in the school's curriculum	-.043*	-.081**
Recognizing coach education as professional development	-.040*	-.063**
Offering coach education courses at school during PA days	-.020	-.038
Offering coach education courses on the internet	-.029	-.060**
Having the school cover fees for coach education courses	-.042*	-.065**

*$p < .05$; **$p < .01$

There were some weak, but statistically significant relationships between age and the usefulness and feasibility of recommendations. These relationships suggest that as teacher-coaches age, there are less likely to report a recommendation as useful or feasible. Although the relationships were statistically significant, they only accounted for between 0.5% and 4% of the variance observed in the ratings of the recommendations. Thus, this small effect size has very little practical implications.

2.3. Civil Status

Civil Status	Frequency	Percent
Single	436	14.3
Married	2177	71.3
Common Law	258	8.5
Cohabitation	37	1.2
Widowed	15	0.5
Separated	56	1.8
Divorced	73	2.4
N =	3052	



The majority (71.3%) of teacher-coaches were married, with the other most frequently reported civil statuses being single (14.3%) and common law (8.5%). Comparing the current sample to Canadian statistics (2011), married teacher-coaches are overrepresented. In 2011, only 46.4% of Canadians (over 15) reported being married. For the purposes of further analyses, participants were coded as either single or in a relationship.

2.3.1. Relationship between Civil Status and Investment in Coaching

Number of Sports Coached

Civil Status	*N*	*M*	*SD*	t-statistic	Sig.
Single	575	2.12	1.16	1.17	.241
Relationship	2430	2.06	1.08		
N =	3005				

Hours per Week

Civil Status	*N*	*M* (hours)	*SD*	t-statistic	Sig.
Single	562	13.5	8.15	-.738	.460
Relationship	2396	13.8	7.43		
N =	2958				

The two groups of teacher-coaches (single and in a relationship) coached an average of two teams and invested approximately 14 hours per week on coaching-related activities. There were no statistically significant differences between the groups.

2.3.2. Relationship between Civil Status and Challenges

Challenge	% Yes	
	Single	Relationship
Being asked to help with class discipline	68.5	68.2
Competing against community sports clubs	65.3	63.6
Competing against 'sport schools'	66.1	65.5
Cutting students from your sport team(s)	80.6	78.5
Dealing with students perceived as 'entitled'	88.1	85.7
Dealing with parents	88.1	87.2
Interacting students wanting to be friends	78.9	74.1
Meeting your family obligations	83.4	91.4
Accessing coach education courses	81.5	80.1
Receiving recognition as a coach	79.6	80.8
Receiving support from colleagues	81.7	83.9
Receiving support from school	81.5	82.7
Managing your time	90.5	91.6
Ensuring transportation	84.4	82.6
Managing administrative tasks	88.6	89.8

N = 2675

		Civil Status		
		Single	Relationship	Total
Meeting your family obligations?	Yes	416*	1988+	271
	No	83+	188*	2404
	Total	499	2176	2675

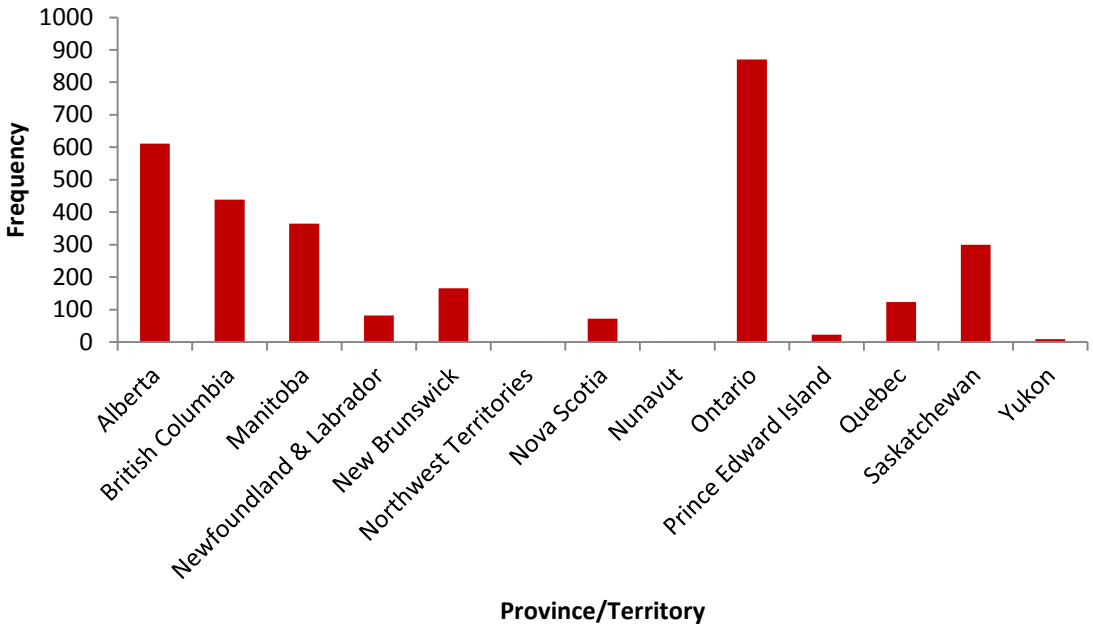
Note: +significantly more than expected; *significantly less than expected

The teacher-coaches did not differ in regards to the challenges reported based on their civil status. The only difference noted was how teacher-coaches in relationships reported more frequently that meeting family obligations was a challenge compared to single teacher-coaches coaches ($\chi^2_{(1)} = 28.49$, $p < .001$**,** Cramer's V = .103).

2.4. Province/Territory

Province/Territory	Frequency	Percent
Alberta	611	20.0
British Columbia	439	14.3
Manitoba	365	11.9
Newfoundland & Labrador	82	2.7
New Brunswick	166	5.4
Northwest Territories	1	0.0
Nova Scotia	72	2.4
Nunavut	1	0.0
Ontario	870	28.4
Prince Edward Island	23	0.8
Quebec	123	4.0
Saskatchewan	300	9.8
Yukon	9	0.3

N= 3062



Responses were received from teacher-coaches in every Canadian province and territory. Furthermore, the distribution of responses is comparable to the distribution of the Canadian population, with the major exception being Quebec which is underrepresented.

2.4.1. Financial Compensation by Province/Territory

Province/Territory	% No
Alberta	91.7
British Columbia	92.5
Manitoba	94.5
Newfoundland & Labrador	95.1
New Brunswick	98.8
Northwest Territories	100
Nova Scotia	97.1
Nunavut	100
Ontario	99.4
Prince Edward Island	100
Quebec	42.6
Saskatchewan	92.5
Yukon	100

N = 3011

The majority (94%) of teacher-coaches reported not receiving any financial compensation for coaching. Many teacher-coaches reported being reimbursed for travel expenses incurred during coaching activities; these were coded as not receiving additional financial compensation. The teacher-coaches who did report financial compensation for coaching indicated receiving only a small stipend of a few hundred dollars in most cases. Teacher-coaches from Quebec were far more likely to report receiving financial compensation for coaching and in greater amounts than teacher-coaches from other provinces ($\chi^2_{(12)} = 184.16$, $p < .001$**,** Cramer's V = .246).

2.4.2. Reduced Teaching Load by Province/Territory

Province/Territory	% No
Alberta	95.1
British Columbia	95.8
Manitoba	97.5
Newfoundland & Labrador	100
New Brunswick	98.8
Northwest Territories	100
Nova Scotia	98.6
Nunavut	100
Ontario	99.4
Prince Edward Island	100
Quebec	75.6
Saskatchewan	99.3
Yukon	100

N = 3032

Excluding Quebec, over 95% of teacher-coaches indicated not receiving a reduction in their teaching load for coaching a high school sport team. Nearly one quarter of Quebec teacher-coaches reported receiving a reduced teaching load for coaching a high school sport team.

2.4.3. Number of Sports Coached by Province/Territory

Province/Territory	*M*	*SD*
Alberta	2.00	1.10
British Columbia	1.75	0.91
Manitoba	2.15	1.10
Newfoundland & Labrador	3.11	1.22
New Brunswick	1.80	1.02
Northwest Territories	2.00	n/a
Nova Scotia	2.28	1.19
Nunavut	1.00	n/a
Ontario	2.13	1.07
Prince Edward Island	2.13	1.01
Quebec	1.82	1.26
Saskatchewan	2.31	1.08
Yukon	2.00	1.50

$N = 3014$

Teacher-coaches in Newfoundland and Labrador coached on average more than three sports in 2014-2015, significantly more than teacher-coaches in other provinces ($F_{(12,3001)} = 12.87$, $p < .001$).

2.4.4. Time Spent Coaching by Province/Territory

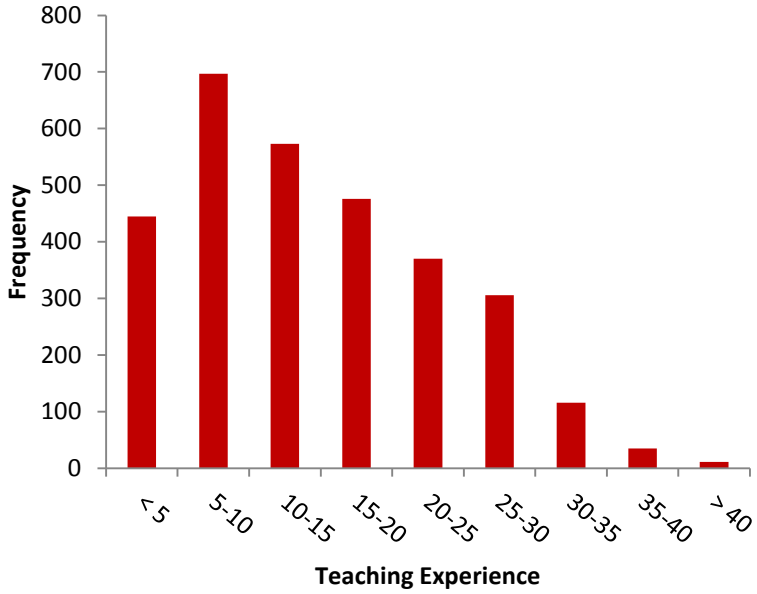
Province/Territory	*M*	*SD*
Alberta	16.19	9.34
British Columbia	13.84	7.87
Manitoba	15.13	7.65
Newfoundland & Labrador	8.18	4.47
New Brunswick	14.98	6.85
Northwest Territories	9.00	n/a
Nova Scotia	13.29	8.10
Nunavut	10.00	n/a
Ontario	12.09	6.23
Prince Edward Island	13.04	6.61
Quebec	11.35	10.53
Saskatchewan	14.42	8.30
Yukon	8.56	3.09

$N = 2967$

There were differences observed between provinces in terms of the number of hours per week invested in coaching ($F_{(12,2954)} = 15.92$, $p < .001$). Teacher-coaches in Newfoundland and Labrador reported coaching fewer hours per week than teacher-coaches in other provinces. Teacher-coaches from the Prairies and New Brunswick reported spending the most time on their coaching duties each week.

2.5. Teaching Experience

N	*M* (years)	*SD*	Minimum	Maximum
3029	15.23	8.98	1	50



Participants indicated a range of teaching experience from having completed a single year up to those who had been teaching for over 40 years. The majority of teacher-coaches reported having taught for 15 years or less.

2.5.1. Relationships with Teaching Experience

Teaching Load

	Teaching Experience
Reduced Teaching Load	-.006

$p = .743$

Number of Sports Coached

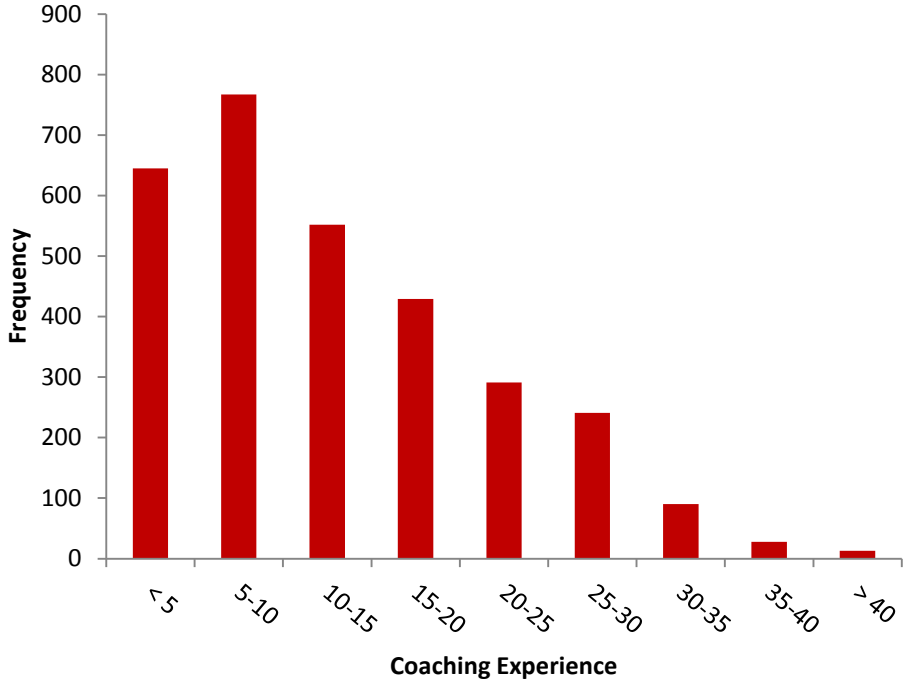
	Teaching Experience
Number of Sports Coached	-.016

$p = .377$

There were no statistically significant relationships between teaching experience and reduced teaching load or number of sports coached. Therefore, results indicate that more experienced teacher-coaches are not getting reduced teaching loads at different rates than their less experienced peers. Furthermore, teacher-coaches, on average, appear to be coaching the same number of teams, irrespective of their level of teaching experience.

2.6. Coaching Experience

N	*M* (years)	*SD*	Minimum	Maximum
3056	13.63	8.99	1	49



Teacher-coaches reported coaching experience ranging from one year to 49 years, with the majority having coached for less than 15 years.

2.6.1. Relationships with Coaching Experience

Teaching Load

	Coaching Experience
Reduced Teaching Load	-.019

$p = .294$

Number of Sports Coached

	Coaching Experience
Number of Sports Coached	.066

$p < .001$

Hours per Week Coaching

	Coaching experience
Hours per Week	.128

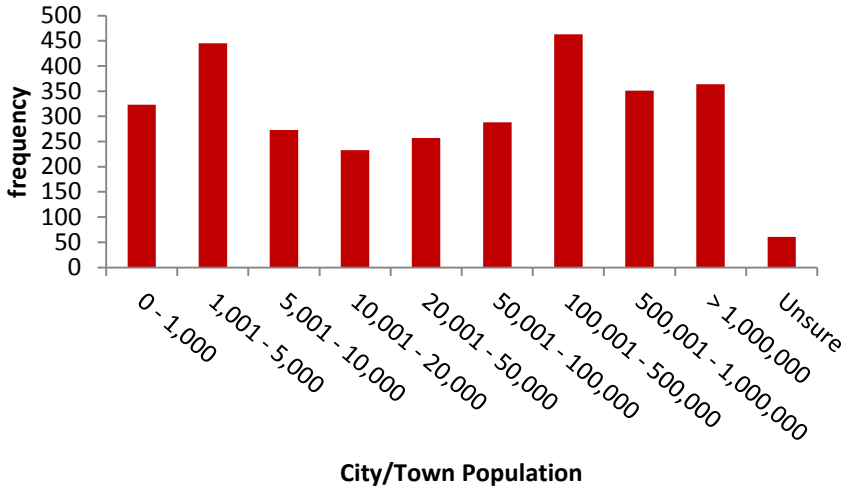
$p < .001$

There was no statistically significant relationship between coaching experience and teaching load. There were weak correlations suggesting that teacher-coaches with more coaching experience may coach more teams and invest more time each week in their coaching duties. It should be noted that these relationships, although statistically significant, only account for less than 2% of the variance.

2.7. Town/City Population

City/Town Population	Frequency	Percent
0 - 1,000	323	10.6
1,001 - 5,000	445	14.6
5,001 - 10,000	273	8.9
10,001 - 20,000	233	7.6
20,001 - 50,000	257	8.4
50,001 - 100,000	288	9.4
100,001 - 500,000	463	15.1
500,001 - 1,000,000	351	11.5
> 1,000,000	364	11.9
Unsure	61	2.0

N= 3058



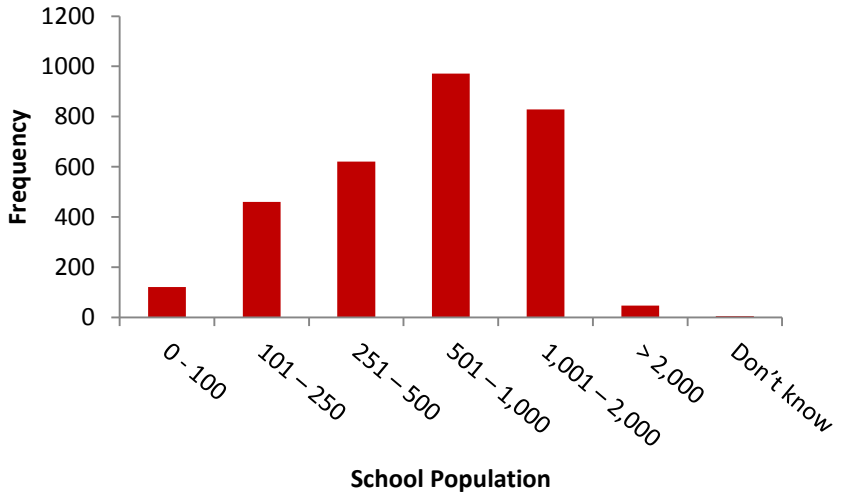
City/Town Population	Frequency	Percent
< 10,000	1041	34.7
10,001 – 100,000	778	26.0
> 100,000	1178	39.3
N =	2997	

Teacher-coaches reported working in a range of population centres ranging from small towns to large cities. For analytical purposes, three groups were created. For the majority of variables, there were no differences based on size of city/town population. However, there were differences in the extent of challenges reported. Teacher-coaches from cities (i.e., > 100,000) reported receiving more support from their school than their counterparts in small towns (i.e., < 10,000) ($F_{(2, 2163)} = 3.89$, $p = .021$). Moreover, teacher-coaches from small towns reported fewer challenges overall than teacher-coaches from larger population areas ($F_{(2, 2649)} = 7.34$, $p = .001$). However, given the weak effect sizes, these differences are of little practical relevance.

2.8. School population

School Population	Frequency	Percent
0 - 100	121	4.0
101 – 250	460	15.1
251 – 500	621	20.3
501 – 1,000	971	31.8
1,001 – 2,000	828	27.1
> 2,000	47	1.5
Don't know	5	0.2

N= 3053



Teacher-coaches reported working at schools of various sizes and 58.9% of the sample reported school populations of between 501 and 2000 students.

2.8.1. Relationship between School Population and Number of Sports Coached

		Number of Sports Coached					
		1	2	3	4	5	Total
School Population	0 – 100	22*	24*	36+	23+	14+	119
	101 – 250	122*	116*	120+	54+	42+	454
	251 – 500	194*	203	134	54	29	614
	501 – 1,000	387	341	157	46*	27	958
	1,001 – 2,000	382+	285	111*	25*	10*	813
	> 2,000	22	18	2	3	0	45
	I don't know	1	2	0	0	1	4
	Total	1130	989	560	205	123	3007

Note: +significantly more than expected; *significantly less than expected

Relationships between school population and number of sports coached were identified ($\chi^2_{(24)} = 261.74$, $p < .001$**,** Cramer's V = .148), with teacher-coaches at smaller schools (i.e., less than 250 students) more likely than expected to coach three or more teams and less likely to coach one or two teams. Teacher-coaches at schools with between 1000 and 2000 students were significantly more likely than expected to coach a single team and less likely to coach three or more teams. Results suggest that smaller schools have fewer resources and have to rely on a core group of teachers to coach multiple sports teams.

2.9. Teaching Load

Reduced Teaching Load?	Frequency	Percent
Yes	92	3.0
No	2945	97.0

N= 3037

The greater majority of teacher-coaches indicated not receiving a reduced teaching load as a result of their coaching duties. Combined with the finding that most teacher-coaches do not receive financial compensation for their teaching duties, the results indicate that most teacher-coaches are provided with few incentives to assume coaching responsibilities at their school.

2.10. Teaching Area

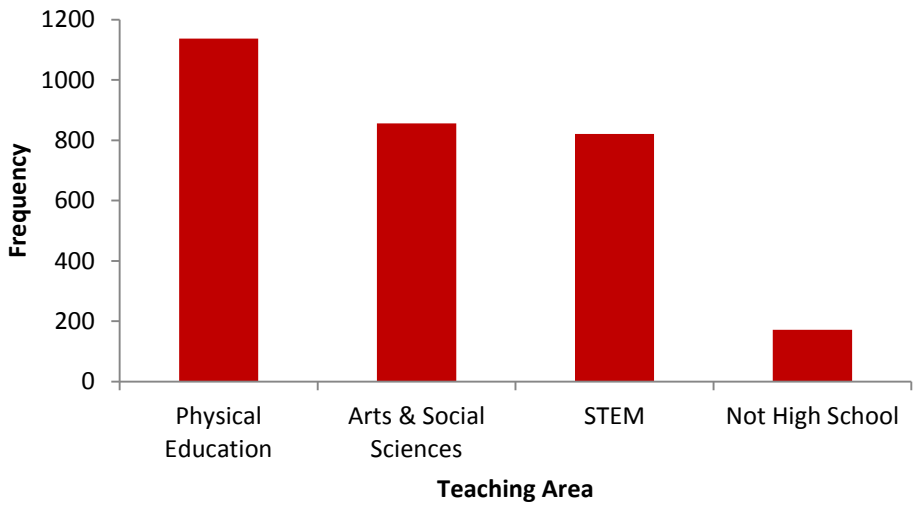
Teaching Area	Frequency	Percent
Arts	75	2.5
Business	37	1.2
History	96	3.1
Guidance	168	5.5
Physical Education	1137	38.1
Languages	214	7.2
Mathematics	336	11.3
Native Studies	6	0.2
Sciences	357	12.0
Social Sciences	260	8.7
Technology	59	2.0
Technical Studies	69	2.3
Elementary School	69	2.3
Middle School	103	3.4

N= 2986

Physical education was cited as one's main teaching area by 38.1% of teacher-coaches, meaning that over 60% of the sample taught in other areas, the most common being the sciences (12%) and mathematics (11.3%). For analytical purposes, the teaching areas were collapsed into four categories: (a) Physical Education, (b) Arts & Social Sciences (i.e., arts, business, history, guidance, languages, native studies, social sciences) (c) STEM (i.e., mathematics, sciences, technology, technical studies) and (d) Not High School (elementary or middle school teachers).

Teaching Area	Frequency	Percent
Physical Education	1137	38.1
Arts & Social Sciences	856	28.7
STEM	821	27.5
Not High School	172	5.8

N= 2986



2.10.1. Relationship between Teaching Area and Number of Sports Coached

Teaching Area	Number of Sports Coached	*SD*
Physical Education	2.54	1.17
Arts & Social Sciences	1.73	0.90
STEM	1.78	0.92

N= 2803

Teaching area accounted for 10% of the variance observed in number of sports coached ($F_{(2,2800)}$ = 161.88, $p < .001$). Teacher-coaches who reported their main teaching area as physical education coached, on average, nearly one more team in 2014-2015 compared to teacher-coaches in other areas. Thus, the results indicate that physical education teachers represent a highly involved group of teachers in respect to coaching high school sport teams. There were no differences between the other two groups of teacher-coaches.

2.10.2. Relationship between Teaching Area and Coaching Efficacy

Teaching Area	Coaching Efficacy	*SD*
Physical Education	3.29	.44
Arts & Social Sciences	3.12	.49
STEM	3.03	.51

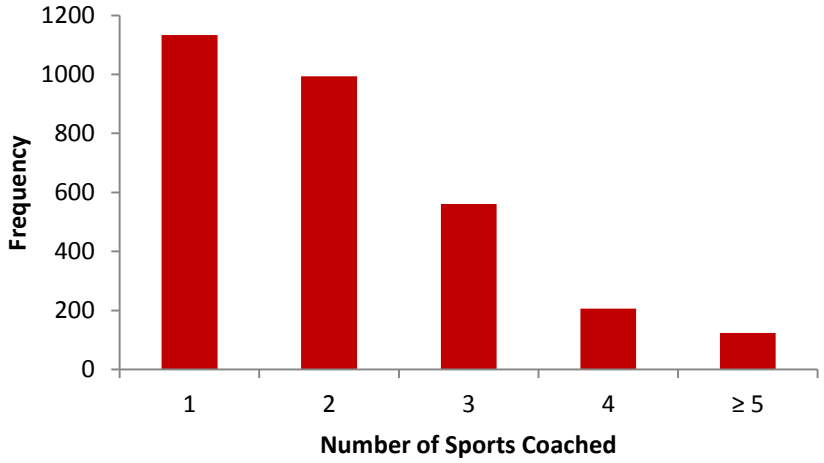
N= 2610

All three groups of teacher-coaches differed from each other in terms of coaching efficacy ($F_{(1, 2598)} = 57.69$, $p < .001$). Physical education teachers scored highest on coaching efficacy, followed by arts and social sciences teachers, and teachers in the STEM fields. Although these differences were statistically significant, all three groups indicated moderately high levels of coaching efficacy.

2.11. Number of Sports Coached

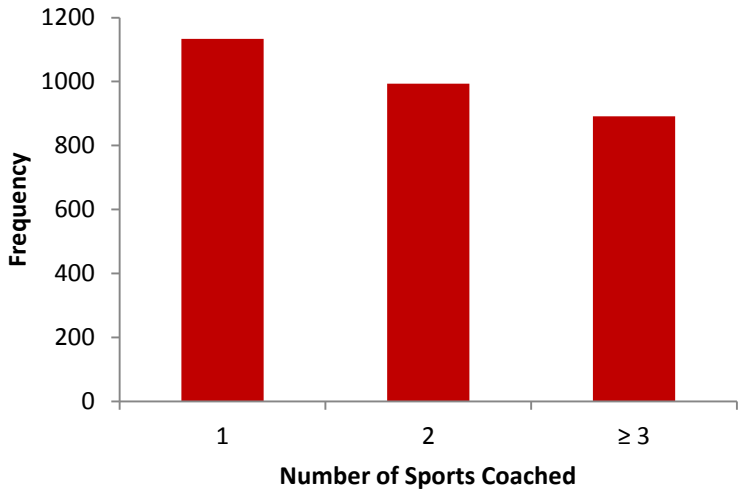
Number of Sports Coached	Frequency	Percent
1	1133	37.6
2	993	32.9
3	561	18.6
4	206	6.8
≥ 5	124	4.1

N= 3017



Number of Sports Coached	Frequency	Percent
1	1133	37.6
2	993	32.9
≥ 3	891	29.5

N= 3017



Most teacher-coaches reported coaching one or two sports with significantly fewer reporting coaching three, four, or five+ teams. For analytical purposes, the teacher-coaches who reported coaching three or more sports were collapsed into a single group.

2.11.1. Relationship between Number of Sports Coached and Time Spent Coaching

There was not a statistically significant relationship between the number of sports coached and the amount of hours per week spent on coaching activities ($r = .002$, $p = .905$). This result may be potentially explained by the fact that there is great variability between sports in terms of demands on time and length of season.

2.11.2. Relationship between Number of Sports Coached and Coaching Efficacy

	CES - Motivation	CES – Game Strategy	CES - Technique	CES - Character	CES – Physical Development	CES - Overall
Number of Sports Coached	.083**	.093**	.077**	.063**	.083**	.094**

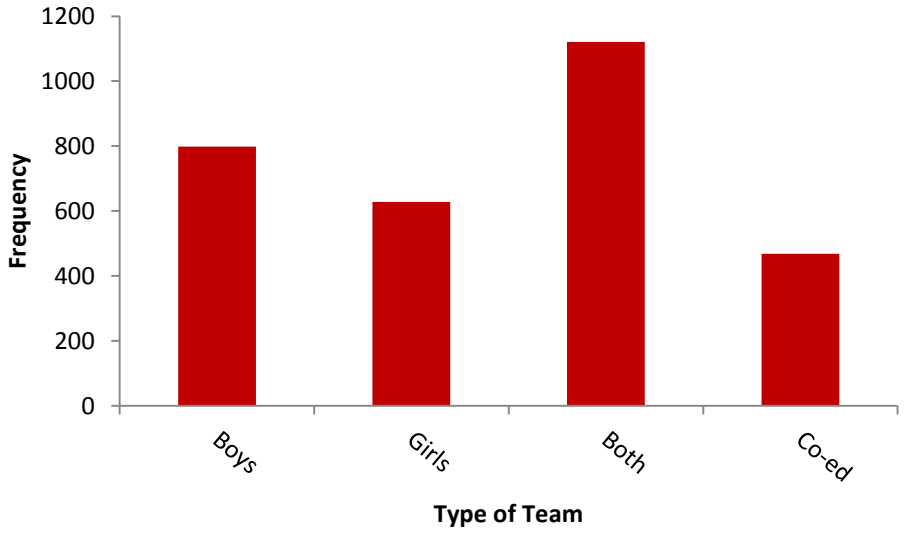
** $p > .01$

Overall, there was a significant relationship between the number of sports coached and coaching efficacy. Every subscale of the CES-HST and the overall scale were weakly positively correlated with the number of sports coached. The results indicate that efficacious teacher-coaches are more likely to coach more sports than their less efficacious peers.

2.12. Type of Team(s) Coached

Type of Team(s)	Frequency	Percent
Boys	798	25.6
Girls	628	20.8
Both	1121	37.2
Co-ed	468	15.5

N= 3015



2.12.1. Relationship between Type of Team(s) Coached and Time Spent Coaching

Type of Team(s)	*M* (hours per week)	*SD*
Boys	15.62	8.33
Girls	13.83	7.29
Both	13.46	6.94
Co-ed	10.90	6.92

N = 2955

Teacher-coaches who coached boys' teams spent significantly more hours per week on coaching-related activities than those coaching girls, both, or co-ed teams ($F_{(3,2952)} = 31.28$, $p < .001$).. Additionally, teacher-coaches who coached co-ed teams spent significantly less time on coaching-related activities than other teacher-coaches. Type of team(s) coached accounted for approximately 4% of the variance in time spent coaching per week.

2.13. Coach-Athlete Relationship

Subscale	*M*	*SD*
Commitment	6.01	.98
Closeness	6.09	.94
Complementarity	6.07	.90
Coach-Athlete Relationship	6.06	.86

N = 2978

Overall, the teacher-coaches reported high quality relationships with their student-athletes. Scores on each of the subscales of the CART-Q were all above six on a seven point scale.

2.13.1. Relationship between Coach-Athlete Relationship and Dual Role Advantages

	Commitment	Closeness	Complementarity	Coach-Athlete Relationship
Gives me numerous opportunities to interact with students in varied settings	.601**	.601**	.592**	.657**
Allows me to get to know a large number of students at school	.461**	.438**	.434**	.488**
Gives me a certain 'cool factor' at school	.303**	.228**	.223**	.277**
Enhances my credibility among the student population	.438**	.390**	.378**	.442**
Helps me maintain a productive class atmosphere	.424**	.382**	.375**	.432**
Helps me get a high level of respect from students	.459**	.427**	.393**	.469**

N = 2935, ** $p > .01$

There were numerous moderate to strong relationships observed between the subscales of the CART-Q and the perceived advantages of being a teacher-coach, with these relationships accounting for between 8% and 43% of the shared variance. The strongest associations between the coach-athlete relationship and dual role advantages were observed within the first item. For the three sub-scales and the overall CART-Q scale, having numerous opportunities to interact with students in varied settings explained between 35% and 43% of the variance observed. In practical terms, it appears that the greatest perceived advantage of being a teacher-coach is that it allows for a greater density of interactions with students.

2.13.2. Relationship between Coach-Athlete Relationship & Teacher Satisfaction

	Teacher Satisfaction
Commitment	.277**
Closeness	.307**
Complementarity	.296**
Coach-Athlete Relationship	.323**

N = 2842, ** *p* > .01

There were moderately strong relationships between coach-athlete relationship quality perceptions and overall teacher satisfaction. These relationships account for between 5% and 10% of the variance in teacher satisfaction. These results indicate that teacher-coaches who perceive high quality coach-athlete relationships are more satisfied with their teaching careers.

2.13.3. Relationship between Coach-Athlete Relationship & Coaching Efficacy

	CES Motivation	**CES Game Strategy**	**CES Technique**	**CES Character**	**CES Physical Conditioning**	**CES Overall**
Commitment	.307**	.278**	.253**	.263**	.209**	.324**
Closeness	.251**	.169**	.154**	.257**	.131**	.232**
Complementarity	.287**	.246**	.222**	.272**	.191**	.299**
Coach-Athlete Relationship	.312**	.256**	.232**	.291**	.196**	.316**

N = 2798, ** *p* > .01

There were many weak to moderate strength correlations between the CART-Q and CES-HST. These relationships, accounting for between 2% and 10% of the shared variance, suggest a moderate relationship between coaching efficacy beliefs and the quality of the coach-athlete relationship. These findings indicate that teacher-coaches with strong coach-athlete relationships are more confident in their ability to coach.

2.13.4. Relationship between Coach-Athlete Relationship and Student Issues

	Coach-Athlete Relationship
Alcohol/Drug Issues	.284**
Boyfriend/Girlfriend Issues	.241**
Bullying and/or Cyber Bullying	.270**
Financial Difficulties	.198**
Parental Alcohol/Drug Issues	.214**
Parental Separation/Divorce	.230**
Physical/Sexual/Emotional Abuse	.203**
Self-Esteem/Self-Confidence Issues	.311**
Suicidal Tendencies	.203**
Non-Desired Pregnancies	.171**

$N = 2758$, ** $p > .01$

Trends were observed pointing to the notion that teacher-coaches who held positive coach-athlete relationship perceptions felt more proficient in helping with student issues. These relationships were weak to moderate in strength and the coach-athlete relationship accounted for between 3% and 10% of the variance for helping with student issues. The strongest relationships were observed with (a) self-esteem/self-confidence, (b) bullying or cyber bullying, and (c) alcohol/drug use issues, indicating that teacher-coaches who perceived quality coach-athlete relationships were more comfortable dealing with these types of issues.

2.14. Teacher-Coaches Compared to Others

2.14.1. Do you believe that developing relationships with students in the context of high school sport is easier than in a classroom?

Response	Frequency	Percent
Yes	2593	88.6
No	335	11.4
N =	2928	

Over 88% of teacher-coaches agreed that developing relationships with students was easier in the context of high school sport than in a classroom context. The participants who answered "yes" to this question were asked to respond to the following four questions.

2.14.2. Relationship Development in High School Sport vs Classroom

I believe it is easier to develop relationships with students in sport compared to the classroom because:	*M*	*SD*
Students are more motivated to play sports than being in a classroom	5.85	1.20
There are more opportunities for interaction in sport than in a classroom	5.55	1.47
Sport is less formalized than a classroom, making it easier to interact with students	5.70	1.41
Sport has a greater emotional dimension than a classroom, which brings coaches and athletes closer together	6.04	1.15

N = 2575

Teacher-coaches strongly believed that developing relationships with students was easier in the context of high school sport than in a classroom context. Although there were not any significant differences among the reasons why teacher-coaches believed it was easier to develop relationships in high school sport, teacher-coaches rated all the reasons highly (7-point scale).

Teacher-coaches were asked to compare themselves with other adults within the school. The following definitions were presented to the participants:

- **Teacher-coach:** A person who holds the dual role of teacher and coach at his/her school
- **Community coach:** A person who coaches but is not a teacher at the school where he/she coaches
- **Teacher not involved in extracurriculars:** A person who teaches but does not coach and is not involved in other extracurricular activities (ex: drama club, math club, etc.) at his/her school

2.14.3. Teacher-Coaches vs. Community Coaches

Compared to community coaches, teacher-coaches:	*M*	*SD*
Show more maturity and professionalism	5.09	1.71
Show higher standards of behaviour	5.42	1.64
Emphasize student development more than winning	5.35	1.55
Have greater presence at school	6.37	1.17
Better monitor students' academic progress	6.22	1.28

N = 2874

The teacher-coaches strongly believed that they were better suited to coach in the high school context than coaches from the community. Although the teacher-coaches agreed with all of the items, they most strongly indicated that teacher-coaches have a greater presence at school and are better able to monitor students' academic progress than community coaches.

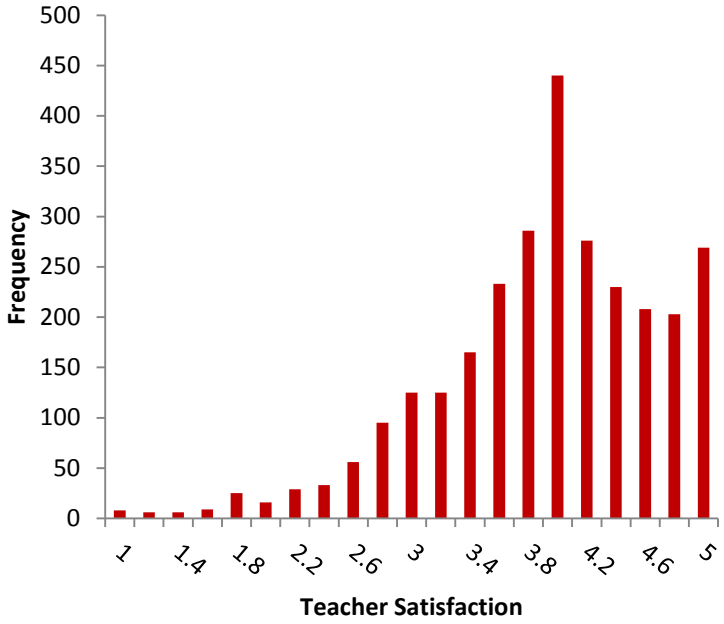
2.14.4. Teacher-Coaches vs. Teachers Not Involved in Extracurriculars

Compared to teachers not involved in extracurricular activities, teacher-coaches:	*M*	*SD*
Can interact with a greater number of students	6.09	1.32
Can develop more meaningful relationships with students	5.96	1.39
Can more easily enforce school rules and encourage proper behaviour	5.72	1.51
Can more easily motivate students to perform academically	5.60	1.46

N = 2874

Generally, the teacher-coaches strongly believed that their dual role strongly impacts their abilities to build relationships with students. Teacher-coaches most strongly indicated that they were able to interact with more students than teachers not involved in extracurriculars.

2.15. Teacher Satisfaction



The teacher-coaches reported high levels of satisfaction with their teaching career (N = 2843; M = 3.92; SD = 0.76). Most participants scored four or higher on a five point scale, with few participants scoring below two.

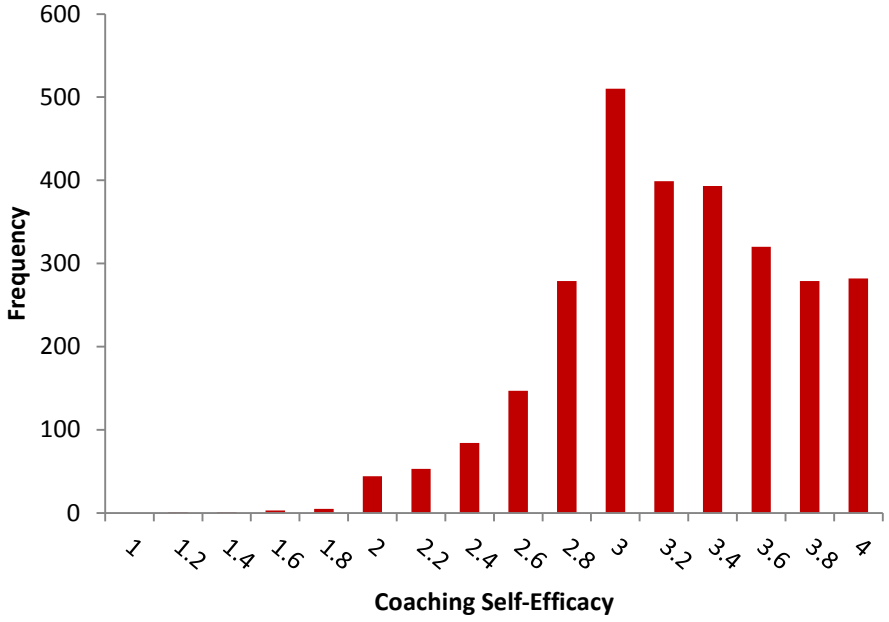
2.15.1. Relationship between Teacher Satisfaction and Challenges

Challenge	Teacher Satisfaction
Being asked to help with class discipline	.059*
Competing against community sports clubs	.039
Competing against 'sport schools'	.079**
Cutting students from your sport team(s)	.128**
Dealing with students perceived as 'entitled'	.023
Dealing with parents	-.040
Interacting students wanting to be friends	.030
Meeting your family obligations	-.068**
Accessing coach education courses	-.012
Receiving recognition as a coach	-.099**
Receiving support from colleagues	-.085**
Receiving support from school	-.119**
Managing your time	-.060**
Ensuring transportation	-.028
Managing administrative tasks	-.063**

N = 1828, * p > .05 ** p > .01

Generally, higher teacher satisfaction was correlated with challenges being perceived as less serious. However, the relationships were weak and accounted for about 1% of the shared variance. As such, teacher satisfaction is not a strong predictor of perceptions of challenges.

2.16. Coaching Efficacy



Teacher-coaches generally reported high levels of coaching efficacy, with the greater majority scoring three or higher on a four point scale (N = 2800; M = 3.16; SD = 0.49).

2.16.1. Relationship between Coaching Efficacy and Student Issues

Student Issue	Coaching Efficacy Scale
Alcohol/Drug Issues	.311**
Boyfriend/Girlfriend Issues	.275**
Bullying and/or Cyber Bullying	.324**
Financial Difficulties	.254**
Parental Alcohol/Drug Issues	.244**
Parental Separation/Divorce	.258**
Physical/Sexual/Emotional Abuse	.256**
Self-Esteem-Self-Confidence Issues	.310**
Suicidal Tendencies	.232**
Non-Desired Pregnancies	.202**

N = 2756, ** p < .01

Weak to moderate strength relationships were observed between coaching efficacy and teacher-coaches' perceived ability to help with student issues. The strongest relationships were observed with (a) bullying/cyber bullying issues, (b) alcohol and drug issues, and (c) self-esteem/self-confidence issues. These relationships accounted for approximately 10% of the observed variance. The other correlations accounted for between 4 and 9% of the observed variance. These findings suggest that teacher-coaches who are more confident in their coaching ability are better able to help students deal with issues.

2.17. Challenges

Challenge	% Yes	*M* (Extent)	*SD*
Being asked to help with class discipline	68.1	4.85	1.81
Competing against community sports clubs	64.0	5.02	1.90
Competing against 'sport schools'	65.6	5.09	1.90
Cutting students from your sport team(s)	78.7	5.19	1.76
Dealing with students perceived as 'entitled'	86.0	5.18	1.61
Dealing with parents	87.3	5.05	1.63
Interacting students wanting to be friends	74.8	4.24	1.71
Meeting your family obligations	89.8	5.80	1.43
Accessing coach education courses	80.3	4.79	1.70
Receiving recognition as a coach	80.5	4.71	1.83
Receiving support from colleagues	83.5	4.69	1.76
Receiving support from school	82.4	4.60	1.88
Managing your time	91.3	5.57	1.47
Ensuring transportation	82.9	5.39	1.64
Managing administrative tasks	89.5	5.71	1.41

$N = 2695$

The 15 items listed were perceived as challenges by between 65% and 91% of the sample. The most frequently identified challenges were managing time (91.3%), meeting family obligations (89.8%), and managing administrative tasks (89.5%). These three challenges were also rated as the biggest challenges, in terms of extent ($F_{(10.64,\ 77753.01)} = 70.26$, $p < .001$).

2.18. Recommendations

Recommendation	Usefulness		Feasibility	
	M	***SD***	***M***	***SD***
Being compensated in time for coaching	6.00	1.58	3.12	2.04
Being compensated financially for coaching	5.31	1.99	2.39	1.83
Having a daycare on school premises	3.54	2.39	2.47	1.91
Reducing the administrative tasks	5.35	1.78	3.26	1.82
Designating a person to manage the administrative tasks	5.61	1.74	3.86	2.02
Receiving more resources for sport from the school board	5.87	1.59	3.27	1.93
Integrating sport in the school's curriculum	5.47	1.74	3.90	1.95
Recognizing coach education as professional development	6.28	1.26	4.72	1.96
Offering coach education courses at school during PA days	6.26	1.27	4.43	2.11
Offering coach education courses on the internet	5.40	1.82	5.20	1.78
Having the school cover fees for coach education courses	6.45	1.08	4.31	2.19

$N = 2346$

Teacher-coaches indicated the recommendations as being more useful than feasible ($F_{(1,2345.00)} = 4398.32$, $p < .001$). In concrete terms, this means that the teacher-coaches view these recommendations as potentially very useful but remain skeptical that they will ever be implemented. The recommendations that were viewed as most feasible were (a) offering coach education online, (b) recognising coach education as professional development, (c) offering coach education courses as professional activity days, and (d) having the school cover coach education fees. These recommendations were also rated highly in usefulness. These findings strongly suggest that teacher-coaches place a high value on formal coach education and want easier access to such training opportunities.

3. Conclusion

The current survey reported on a wide range of demographic and role-related variables reported by over 3,000 Canadian high school teacher-coaches. Although there were many statistically significant relationships between demographic variables and role-related variables, these relationships were often quite weak and thus of limited use in practical terms. In sum, the general consensus emanating from the results is that Canadian high school teacher-coaches largely face the same type and degree of challenges, irrespective of their personal characteristics. Despite the challenges they face, there is strong evidence indicating that teacher-coaches firmly believed that their dual role allows them to (a) develop meaningful relationships with their student-athletes and (b) help with a number of issues in their student-athletes' lives.

Taken together, the results point to several concerning trends. More than 60% of teacher-coaches in our sample reported coaching two or more sports in 2014-2015 but only 3% reported benefiting from a reduced teaching load. Furthermore, with the exception of Quebec, the vast majority of teacher-coaches reported not receiving financial compensation for their coaching duties. Although there is evidence indicating that many teacher-coaches remain involved in coaching long-term, based on their years of coaching experience, it is worrying that most (~ 90%) find it challenging to manage their time, take care of their administrative tasks, and meet their family obligations. Taking into consideration that teacher-coaches generally do not have contractual obligations to coach, important questions must be asked as it relates to the viability of the current volunteer system in place, given the high prevalence of challenges reported across teacher-coaches of all demographic backgrounds.

4. References

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*, 77-101. doi: 10.1191/1478088706qp063oa

Camiré, M. (2015a). Exploring high school teacher-coachers' perspective on relationship building with student-athletes. *International Sport Coaching Journal, 2*(2), 125-136. doi: 10.1123/iscj.2014-0098

Camiré, M. (2015b). Being a teacher-coach in Ontario high schools: Challenges and recommendations. *Revue phéEPS/PHEnex Journal, 7*(1), 1-15.

Feltz, D. L., Chase, M. A., Moritz, S. E., & Sullivan, P. J. (1999). A conceptual model of coaching efficacy: Preliminary investigation and instrument development. *Journal of Educational Psychology, 91*, 765-776.

Ho, C., & Au., W. (2006). Teaching satisfaction scale: Measuring job satisfaction of teachers. *Educational and Psychological Measurement, 66*(1), 172-185. doi: 10.1177/0013164405278573

Myers, N. D., Feltz, D. L., Chase, M. A., Reckase, M. D., & Hancock, G. R. (2008). The Coaching Efficacy Scale II – High School Teams. *Educational and Psychological Measurement, 68*(6), 1059-1076. doi: 10.1177/0013164408318773

Vierimaa, M., Erickson, K., Côté, J., & Gilbert, W. (2012). Positive youth development: A measurement framework for sport. *International Journal of Sports Sciences & Coaching, 7*(3), 601-614. doi: 10.1260/1747-9541.7.3.601