EXPLORING NEGATIVE SPORT EXPERIENCES AS PREDICTORS OF POSITIVE YOUTH DEVELOPMENT

A Thesis

Submitted to the Graduate Faculty
In Partial Fulfillment of the Requirements
For the Degree of Master of Science
Human Biology

Department of Applied Human Sciences
Faculty of Science
University of Prince Edward Island

Travis William McIsaac
Charlottetown, Prince Edward Island
2017
Exploring Negative Sport Experiences as Predictors of Positive Youth Development

Travis McIsaac
Department of Applied Human Sciences
University of Prince Edward Island
2017
Abstract

Sport is a popular activity among youth, and has the potential to positively influence the lives of its participants. However, the outcomes associated with sport participation are not invariably positive; thus, understanding the influence of negative sport experiences is important. There is a scarcity of research on the relationship between negative sport experiences and positive youth development. The purpose of the present study was to explore three types of experiences – athlete burnout, competitive anxiety, and negative coach-athlete relationships – in their relation to positive youth development as measured by the developmental assets framework. Seventy-two male and female youth sport participants completed surveys, either on-site or via an online survey platform. Stepwise multiple regression analyses were conducted to assess the relationship between the independent variables represented by the subscales of the respective sport measures, and the dependent variable of positive youth development. Results of these analyses show the emergence of only one predictor variable, that being the factor of complementarity within the coach-athlete relationship, which demonstrated a positive association with the developmental outcome of empowerment. Such an association suggests that high complementarity could potentially contribute to enhanced feelings of empowerment. Given the influential role that coaches play in the lives of youth, this relationship might not be particularly surprising. However, while this finding was encouraging, complementarity within the coach-athlete relationship involves positive interactions. Given that the present study sought to explore the impact of negative sport experiences, uncovering an association between a more negative sport construct and positive development could have proven more empirically valuable.
Acknowledgements

I would like to begin by acknowledging my supervisor, Dr. Dany MacDonald. Thank you for offering your encouragement, your advice and the opportunity to learn from yourself and others around me.

I would also like to thank both Dr. Travis Saunders and Dr. Leisha Strachan, members of my research committee, for their ongoing support and valuable feedback. Your suggestions have helped shape this thesis for the better, and for that I thank you.

I would be amiss if I did not thank my family. Thank you Mom and Dad for your patience and quiet support, especially when it seemed that I might never see the labor of my research bear fruit. Thank you to my brother, Dylan, for offering your practicality and a welcome perspective from a vantage point entirely foreign to sport and psychology! And a big thank you to Chip, of course, for his loyal canine companionship.

This endeavor has taken me longer than expected, than hoped, but it would not have been possible without the help of you all, among others. The pages to follow belong to you as much as me. I hope you enjoy reading what I have (mostly) enjoyed writing.
# Table of Contents

Introduction 1

Literature review 3
  - bio-ecological systems theory 4
  - developmental model of sport participation 6
  - positive youth development 9
  - developmental assets 13
  - athlete burnout 17
  - competitive anxiety 20
  - coach-athlete relationships 22

Rationale and Purpose 27

Method 28
  - participants 28
  - procedure 29
  - materials 31
  - data analysis 33

Results 35
  - descriptives 35
  - correlations 37
  - regression 41

Discussion 42
  - strengths 45
  - limitations 46
  - future directions 48
  - conclusion 49

References 53

Appendices 64
List of Figures & Tables

<table>
<thead>
<tr>
<th>Figure/Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 1:</td>
<td>Developmental Model of Sport Participation</td>
<td>8</td>
</tr>
<tr>
<td>Figure 2:</td>
<td>Order of surveys administered to participants</td>
<td>31</td>
</tr>
<tr>
<td>Table 1:</td>
<td>Descriptive statistics of independent variables</td>
<td>35</td>
</tr>
<tr>
<td>Table 2:</td>
<td>Descriptive statistics of dependent variables</td>
<td>37</td>
</tr>
<tr>
<td>Table 3:</td>
<td>Correlation matrix of subscales</td>
<td>39</td>
</tr>
<tr>
<td>Table 4:</td>
<td>Stepwise multiple regression analyses predictors</td>
<td>41</td>
</tr>
</tbody>
</table>
## List of Appendices

<table>
<thead>
<tr>
<th>Appendix</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appendix I:</td>
<td>Letter of information</td>
<td>69</td>
</tr>
<tr>
<td>Appendix II:</td>
<td>Informed consent form</td>
<td>71</td>
</tr>
<tr>
<td>Appendix III:</td>
<td>Demographic survey</td>
<td>72</td>
</tr>
<tr>
<td>Appendix IV:</td>
<td>Developmental Assets Profile</td>
<td>73</td>
</tr>
<tr>
<td>Appendix V:</td>
<td>Athlete Burnout Questionnaire</td>
<td>75</td>
</tr>
<tr>
<td>Appendix VI:</td>
<td>Competitive State Anxiety Inventory</td>
<td>77</td>
</tr>
<tr>
<td>Appendix VII:</td>
<td>Coach-Athlete Relationship Questionnaire</td>
<td>77</td>
</tr>
</tbody>
</table>
Introduction

Sport has the potential to accomplish three objectives in youth development: improve children’s physical health, promote positive psychosocial development through opportunities to learn key skills (e.g. leadership, self-control), and teach motor skills (Côté & Fraser-Thomas, 2011). These three objectives should be accomplished through integration rather than through isolation. Youth sport programs should emphasize fun, skill development, and participation to encourage long-term involvement and success across all developmental stages and at all levels of sport (Côté & Fraser-Thomas, 2011).

A holistic approach should be used in considering a child’s overall development, to take into account all factors that influence development. This suggests that the environment is an important aspect when examining development through youth sport (Côté, Strachan, & Fraser-Thomas, 2008). Bronfenbrenner’s (1977) bio-ecological systems theory provides a coordinated approach to studying human development and will serve as a framework to guide an examination of youth development occurring in sport.

Two other developmental frameworks can be aligned within this larger structure. The Developmental Model of Sport Participation (DMSP; Côté et al., 2008) provides pathways that support continued participation for youth, health benefits, and psychosocial development in sport. Positive youth development (PYD) approaches have begun to recognize sport as an important agent to promote positive developmental experiences (Fraser-Thomas, Côté, & Deakin, 2005; MacDonald, Côté, Eys, & Deakin, 2011).

The present study will thus explore the development of youth sport participants using an integrated developmental approach comprised of three principal frameworks: bio-ecological systems theory, the DMSP, and PYD approach.
Although sport has the potential to positively influence the development of youth, positive outcomes are not automatic. Understanding the influence of negative sport experiences is therefore important, especially given the scarcity of research on such experiences in relation to positive youth development. The purpose of the present study was to explore three types of sport experiences – athlete burnout, competitive anxiety, and negative coach-athlete relationships – in relation to positive youth development, using the three integrated frameworks noted above.
Literature Review

The purpose of the present study was to explore how negative sport experiences may relate to positive youth development (PYD). This is a timely research area given the popularity of youth sport. Guèvremont and colleagues (2008) presented data from a 2001 National Longitudinal Survey of Children and Youth, investigating participation in sport, non-sport activities, and clubs or community groups among Canadian children aged 6-17 (Guèvremont, Findlay, & Kohen, 2008). They found that the majority of youth (86%) opted to participate in at least one extracurricular activity during the previous year. Compared to non-sport activities or clubs/community groups – which had 37% and 36% rates of participation respectively – a much larger proportion (77%) engaged in sport (Guèvremont et al., 2008). Given this prevalence, the context of youth sport is important to consider.

The youth sport context may provide an environment conducive to development, as participants learn important intrapersonal and interpersonal skills such as teamwork (Fraser-Thomas & Côté, 2009). However, despite the preconceived notion that sport promotes mostly positive outcomes, research has shown that sport can promote negative peer interactions and discourage prosocial norms (Hansen, Larson, & Dworkin, 2003). The value of organized youth sport in regards to development appears to be contingent on the structure of the sport program and its emphasis on providing a supportive context (Fraser-Thomas et al., 2005).

An understanding of the influence of sport on youth development should be preceded by an understanding of youth development. The three frameworks that will
guide this study – the bio-ecological systems theory, the DMSP, and PYD approach – will be discussed separately and then aligned as an interconnected perspective.

**Bio-ecological systems theory**

The bio-ecological systems theory refers to the notion that human development and behavior are the result of various person-context interactions (Bronfenbrenner, 1995). In his early work, Bronfenbrenner (1977) conceptualized four key systems within the bio-ecological approach: i) microsystem, ii) mesosystem, iii) exosystem, and iv) macrosystem.

The microsystem, which is the first of these systems, represents the participant who immediately interacts with his/her physical domain, location, and/or a program of activities. The mesosystem is based on the interrelationships between two or more microsystems involving the developing person (e.g. coach-athlete relationship). The third system, which is the exosystem, does not involve the person but represents situations that affect the setting containing that person (e.g. interaction between the coach and program director). Finally, the macrosystem includes the various cultural and social forces (e.g. socioeconomic status) influencing human development. These four systems constantly interact with one another to produce specific developmental outcomes (Côté et al., 2008).

As an example of these systems, consider a young athlete who is involved in a sport program that emphasizes outcomes such as winning over personal development. Throughout their participation, the relationship with the coach will affect the experience, as the child may perceive a controlling coaching style and a lack of support from their coach. Poor communication between the coach and program leader may be present which would influence the sport setting in less than ideal ways. Finally, if the sport program is
subsequent to a lack or resources, this will also affect the young athlete’s sport experience. This example highlights how all aspects of the environment can affect the experience of the participant and reinforces the notion that a holistic view of development needs to be used when considering the development of youth sport participants.

Based on these four systems, Bronfenbrenner (1999) suggested two propositions. The first states that development, particularly in its early stages, occurs through complex and reciprocal interactions between the individual and persons, objects, and symbols in their immediate environment (Côté et al., 2008). These interactions are referred to as “proximal processes” and must occur on a regular basis over a long period of time for development to occur; examples include group or solitary play, learning new skills, athletic activities, and reading (Côté et al., 2008). The second states that the form, power, content, and direction of these processes vary due to: a) the characteristics of the person, b) the environment in which the processes are occurring, c) the particular developmental outcomes under consideration, and d) the changes occurring over the time period in which the processes are occurring (Côté et al., 2008). These propositions reinforce the ongoing relationships between the developing person and their environment and suggest that the environment itself, above and beyond the person, will affect development.

This paradigm has been appropriately termed the person-process-context-time (PPCT) model and is proposed as a useful framework with which to examine the youth sport context as a unique developmental process (Garcia Bengoechea & Johnson, 2001). These researchers highlighted: a) the importance of youths’ interaction with their environment and others, b) the effect of contextual influences such as coaches and peers within youth sport, and c) the importance of time in relation to developmental
characteristics and context (Strachan, Côté, & Deakin, 2009). Components of the PPCT model align with athlete development models such as the Developmental Model of Sport Participation (DMSP; Côté & Fraser-Thomas, 2011), which allows for an integrated view of athlete development by accounting for both proximal processes within the organized sport context and the importance of appropriate temporal progression through sport.

**Developmental Model of Sport Participation**

The DMSP strives to understand and outline the underlying processes of sport participation and athlete development. In doing so, the model outlines the typical progression for athletes through sport, believed to occur through one of three trajectories: a) recreational participation through sampling, b) elite performance through sampling, and c) elite performance through early specialization (Côté & Fraser-Thomas, 2011).

The first two trajectories – recreational and elite participation through sampling – are based on the same foundation from ages 6 to 12. During this time, which is referred to as the sampling years, young people participate in a variety of sports that focus primarily on promoting deliberate play activities. These play activities are loosely structured, designed to foster enjoyment and health, and are regulated by flexible age-adapted rules. These activities are typically set up and monitored by the children themselves or an adult, but children may choose to modify rules so that the game they are playing resembles the actual sport but still allows for play at their level. For example, lowering the height of the basket for a pickup basketball game would enable children to experience more success.

Following the sampling years, participants may then choose to remain involved in sport at a recreational level (recreation years, age 13+). Participants who choose this path thus follow the recreational participation trajectory. Other individuals may choose a
performance approach in the hope of developing expertise. These participants follow the elite performance through sampling pathway and exit the sampling years into the stage referred to as the specializing years (ages 13-15). These years are a transitional stage and see athletes engage in fewer activities, combining deliberate play and deliberate practice. Deliberate practice refers to highly structured activities requiring vast amounts of effort that generate no immediate reward and are motivated by the goal of improving one’s performance rather than inherent enjoyment (Ericsson, Krampe, & Tesch-Römer, 1993). The specialization years are usually followed by the investment years stage (age 16+), which leads to elite participation. The investment years typically feature a commitment to only one activity with an emphasis on deliberate practice for the purpose of improvement.

The third trajectory is based on early specialization and is associated with the attainment of elite performance in sport. Early specialization features high levels of deliberate practice and low levels of deliberate play with an emphasis on performance (Côté & Fraser-Thomas, 2011). Such a context is similar to the investment years described above. Figure 1 provides an overview of the phases of the DMSP. It is important to note that these are typical paths in which athletes progress in sport; individuals may progress in different ways, and thus the ages denoted in each stage are guidelines rather than universal rules.
Beyond discussing different levels of expertise gained through sport participation, the DMSP acknowledges that development will be impacted by environmental factors such as significant others (coaches, parents, peers, siblings; Fraser-Thomas, Côté, & Deakin, 2008a). These others interact with the athlete to create an interconnected social context that can influence the athlete’s sport experience and subsequent participation. This aligns with the context aspect of the PPCT model within Bronfenbrenner’s bi-ecological systems theory. While the DMSP recognizes the importance of external factors such as the influence of significant others and the sport context, it also recognizes the various intrapersonal and interpersonal skills that youth have the opportunity to acquire through sport involvement (e.g. teamwork, social skills) and how these skills can contribute to their development.
Like the bio-ecological model, the DMSP aims to better understand development, albeit within the specific sport context. The former suggests that proximal processes are particularly important during the early stages of development (Bronfenbrenner, 1999), and the latter focuses primarily on the activities and experiences of youth within sport. Though the specificity of their focus may differ, their shared focus on the importance of healthy youth development aligns them with an overarching theoretical perspective related to the positive development of participants.

In addition to the differing activities within the different trajectories of the DMSP, each trajectory may produce different outcomes. Although the first two trajectories – recreational participation through sampling and elite performance through sampling – provide athletes with different performance outcomes, they do share psychosocial and physical health benefits (Côté & Fraser-Thomas, 2011). Although the third trajectory can result in elite performance, it has been linked to impaired health in the form of overuse injuries (Brenner, 2007) as well as reduced enjoyment (Fraser-Thomas et al., 2008a) and eventual sport dropout (Fraser-Thomas et al., 2008b). It has also been suggested that the missed social opportunities that are offered through early diversification can hinder the social development of youth (Wright & Côté, 2003). So while sampling various sports is thought to stimulate participants’ intrinsic motivation (Côté & Fraser-Thomas, 2007), engaging in sport-specific training from a young age may have negative implications for long-term participation (Côté et al., 2008).

Positive youth development

The PYD framework can be understood as an encompassing strength-based perspective which believes that all youth possess the potential for positive, successful,
and healthy development (Lerner et al., 2005). Such a perspective is active rather than passive in its quest for development. Environmental risks such as family violence and problem behaviors such as substance use have traditionally been addressed by utilizing a “deficit reduction” approach (Benson, 1997). This involves a problem being identified (e.g. substance use), and resources being allocated to alleviate or eliminate the problem once it has been encountered.

This approach is costly and may not be viable for optimal development. It has also been suggested that youth who are “problem free” are not necessarily well-prepared to be productive and contributing members of society at large (Pittman, 1991). This approach can also unwittingly contribute to an “over-professionalization of care” and a sense of civic disengagement that occurs when responsibility for care lies with professionals and programs rather than citizens (Benson, Leffert, Scales, & Blyth, 1998).

A shift in thinking has led to the emergence of an asset-building framework that aims to promote development by preventing problem behaviors prior to their occurrence (Benson, 1997). This approach strives to actively empower youth throughout their development in the hopes of preventing future issues like school dropout or substance use (MacDonald, Côté, Eys, & Deakin, 2012). Rather than reacting to issues after they occur, the PYD approach aims to integrate creative, competent, and engaged youth into society. By focusing on the strengths and potential of youth, the PYD framework seeks to nurture youth and enable them to develop in a healthy manner.

Organized youth activities provide an environment conducive to promoting PYD (Fraser-Thomas et al., 2005; Holt, 2016). In his review of studies examining the experiences of youth across different activities, Larson (2000) proposed that structured
extracurricular activities such as sport provide a viable environment to foster PYD; voluntary activities such as arts and other organizations such as sports are important because youth experience a rare combination of intrinsic motivation and attention (Larson, 2000). Larson specifically sought to examine how such activities influence the development of initiative as a central learning experience in PYD. His findings suggest that structured voluntary activities provide a context suitable to initiative development, because participants must direct and regulate their actions in the pursuit of some goal. The review also found support for other positive outcomes such as increased self-control and self-efficacy, diminished delinquency, and greater achievement (Larson, 2000).

Evidence suggests that participation in organized sports can serve as an effective “intervention” rooted in PYD (Vella, Gardner, & Liddle, 2016), in that participation can enhance one’s social and emotional functioning, enhance health-related quality of life, and protect against the development of mental illness during childhood and adolescence at a population level (Vella, Cliff, Magee, & Okley, 2014a; 2014b).

These findings are especially important given the popularity of youth sport (Guèvremon et al., 2008). Organized sport has the potential to play a significant role in developmental experiences of youth: “experiences that give you new skills, new attitudes, or new ways of interacting with others” (Dworkin, Larson, & Hansen, 2003, p. 20).

As alluded to above, participation in organized sport is often assumed to invariably result in positive outcomes, including leadership qualities and teamwork (Fraser-Thomas & Côté, 2009), life skills (Hodge, Danish, Forneris, & Miles, 2016), responsibility (Martinek & Hellison, 2016), and improved academic outcomes (Guèvremon et al., 2008). These positive outcomes are based on another assumption that
sport itself is essentially good (Coakley, 2016). But such positive outcomes do not always occur. It has been demonstrated that sport participation does not automatically lead to developmental benefits for youth, but rather the potential for youth to experience positive outcomes depends on features of the sport environment and interactions between multiple agents in multiple contexts (Tamminen & Neely, 2016).

This was affirmed by Hansen and colleagues (Hansen, Larson, & Dworkin, 2003), who investigated 450 high school students’ experiences in organized sport compared to other youth activities. They found mixed outcomes associated with sport in comparison to other activities: youth sport participants reported higher self-knowledge and improved emotional regulation and physical skills, but not higher rates of learning experiences in teamwork and social skills compared to non-sport participants. Sport participants also reported learning fewer prosocial norms and indicated negative peer interactions and inappropriate adult behavior compared to non-sport peers (Hansen et al., 2003).

Other work has yielded similar mixed findings. Eccles and Barber (1999) examined the potential risks and benefits associated with five types of youth activities: church and volunteer organizations, school involvement, team sports, performing arts, and academic clubs. In using eight waves of longitudinal data to assess the impact of such activities on youth development, they found mixed outcomes associated with sport. Involvement in team sports in Grade 10 was a risk condition for alcohol use in Grade 12, but sport participants liked school better in both 10th and 12th grades, had a higher than expected Grade 12 GPA, and were more likely to attend college full-time compared to their non-sport participants (Eccles & Barber, 1999).
To further understand adolescents’ positive and negative experiences in sport, Fraser-Thomas and Côté (2009) interviewed twenty-two competitive Canadian swimmers between the ages of 14 and 18 years. These swimmers spoke of positive experiences, such as the reward of being challenged, building meaningful peer and adult relationships, a sense of community, and other experiences. They also reported negative experiences such as poor relationships with their coach, negative peer influences, parental pressure, and challenging psychosocial environments.

Findings regarding the outcomes associated with sport participation are mixed, but it also appears that sport has the potential to positively impact youth development (Fraser-Thomas & Côté, 2009; Bruner, Hall, & Côté, 2011). The PYD approach is thus appropriate to understand how sport can yield positive outcomes, and it can be coupled with broader developmental models such as the DMSP (Côté & Fraser-Thomas, 2011) and bio-ecological model (Bronfenbrenner, 1977) to provide a holistic view of athlete development beyond performance. Sport programs focused on developing personal assets might provide youth with opportunities for social interactions with peers and adults, empower athletes to develop skills and confidence in their abilities, and invoke situations that promote character development (Turnnidge, Evans, Vierimaa, Allan, & Côté, 2016). So while multiple approaches to PYD have been suggested (MacDonald & McIsaac, 2016), the Developmental Assets approach (Benson, 1997; Scales, Leffert, & Lerner, 2004) aligns with the study of youth sport participants.

Developmental assets

A synthesis of child and adolescent research, and consultation with both researchers and practitioners, led to a list of developmental assets (Benson et al., 1998).
These assets reflect developmental characteristics that are thought to predict the healthy development of youth. Initially outlined by Benson (1997), these assets are considered “building blocks” that can facilitate development through the reduction of health-compromising or risk behaviors or by enhancing academic success and other positive outcomes (Leffert, Benson, Scales, Sharma, Drake, & Blyth, 1998). Forty developmental assets have been proposed across the two categories of internal and external assets.

Internal assets reflect one’s values and beliefs, and include: a) commitment to learning (“I do my homework”), b) positive values (“I am developing respect for other people”), c) social competencies (“I build friendships with other people”), and d) positive identity (“I feel good about my future”). External assets reflect aspects of a person’s environment and include the following: a) support (“I have a family that gives me love and support”), b) empowerment (“I feel safe and secure at home”), c) boundaries and expectations (“I have teachers who urge me to develop and achieve”), and d) constructive use of time (“I am involved in a sport, club, or other group”) (Search Institute, 2004). These forty assets are measured using the Developmental Assets Profile (DAP; Search Institute, 2004), which gives quantitative scores for each asset category.

These assets are thought to promote thriving, foster resilience, and diminish risk behaviors in youth by providing opportunities for them to develop skills and build relationships (Scales, Benson, Roehlkepartain, Sesma Jr., & van Dulmen, 2006). Research shows that the more assets youth possess, the greater their likelihood of developing in a positive way (Benson et al., 1998; Leffert et al., 1998; Strachan et al., 2009). This research also found that greater asset possession plays a key role in informing three types of health outcomes: a) protection: lower likelihood of participating in high
risk behavior such as alcohol use, b) enhancement: greater contribution to community and showing concern for others, and c) resiliency: showing courage and confidence in tough situations (Strachan et al., 2009).

While it is difficult to imagine that one activity should be expected to promote all of the developmental assets, sport has been proposed as an environment in which many of the assets can be developed (Fraser-Thomas et al., 2005). Although all of the assets are important to consider in developing youth in a positive manner, some may be especially beneficial within the setting of youth sport. Strachan and colleagues (2009) examined the personal and contextual outcomes of 123 athletes between the ages of 12-16 years, and in doing so found three particular asset categories – positive identity, support, and empowerment – that are especially important in increasing sport enjoyment and decreasing sport burnout. They suggested that these asset categories must be explicitly promoted and emphasized within youth sport to optimize development.

Well-designed sport programs have the capacity to promote asset development, but if improperly structured, youth may endure negative experiences within their sport (Fraser-Thomas et al., 2005). Assessing the structure of sport programs can involve using the PPCT model as a guide. A properly structured program should include opportunities to develop assets (person, process); positive contextual factors such as healthy peer interactions; and proper developmental progression through sport (time). A poorly designed program may not consider the individual’s developmental capacity and could involve inappropriate progression through sport, limited opportunities to develop assets, and a less ideal context (Strachan et al., 2009).
The work of Strachan and colleagues (2009) aligns with previous work by Petitpas, Cornelius, Van Raalte, and Jones (2005), who established the connection between youth sport programs and developmental assets. In providing a foundation for planning youth sport programs to promote participants’ psychosocial development, these researchers highlighted the encouraging potential for sport to provide opportunities for personal growth in youth sport participants.

Despite efforts aiming to provide guidelines with which to promote PYD in sport, negative sport experiences do occur (Hansen et al., 2003; Fraser-Thomas & Côté, 2009). Work by Tamminen and colleagues (Tamminen, Holt, & Neely, 2013) looked at the experience of adversity in sport among five elite female athletes, who reported incidents of performance slumps, coach conflicts, bullying, eating disorders, sexual abuse, and injuries. These adverse experiences also shared essential features: isolation/withdrawal, emotional disruption, questioning one’s athletic identity, and understanding experiences within a context of perceived expectations (Tamminen et al., 2013). While it is generally thought that negative sport experiences are detrimental to positive youth development, this has not been verified. For example, results from the work of Tamminen et al., (2013) indicate that athletes’ experiences of adversity may have initiated a process of questioning their identities and searching for meaning in their adversity experiences. Athletes did not perceive growth through experiencing adversity per se, but rather they perceived growth when they were able to find meaning related to the role of sport in their lives and when they realized the importance of social support through their adversity (Tamminen et al., 2013).
It is therefore timely to explore negative sport experiences to better understand their impact on youth development. Research on youth sport shows that negative experiences can emerge (e.g. Hansen et al., 2003; Fraser-Thomas & Côté, 2009), representing both individual and environmental influences. Feelings of burnout or anxiety are subjective to an athlete, while the relationship with one’s coach is an environmental influence on the young athlete (e.g. Tamminen et al., 2013; Fraser-Thomas et al., 2008a). These three specific negative sport experiences will be discussed in greater detail below.

**Athlete burnout**

Burnout is defined as “a psychological syndrome of emotional exhaustion, depersonalization and reduced personal accomplishment that can occur among individuals who work with people in some capacity” (Maslach & Jackson, 1984, p. 134). Although it initially appeared in the workplace setting, burnout increasingly emerged in athletic circles as a topic of interest to researchers within the field of sport psychology. This awareness was not accompanied by a clear understanding of what is meant by the term burnout. This lack of understanding was addressed by Raedeke (1997), who in applying Maslach and Jackson’s definition to the sport setting defined athlete burnout as a “syndrome of physical and/or emotional exhaustion, sport devaluation, and reduced athletic accomplishment” (p.398). Raedeke suggests that this definition is attractive because it attempts to identify the underlying dimensions of athlete burnout and enables researchers to differentiate between athletes who withdraw from sport due to burnout from those who withdraw for other reasons.

Athlete burnout has been linked to negative outcomes such as physical illness, fatigue or lethargy, and a lack of confidence and motivation (Cresswell & Eklund, 2006).
Cresswell and Eklund (2006) investigated burnout in fifteen professional rugby players aged 21-31 years. The athletes reported symptoms of burnout and attributed these feelings to excessive pressure and unrealistic expectations, heavy training and playing load, loss of identity, excessive competitive culture, injury, conflicting values and concerns about life following rugby (Cresswell & Eklund, 2006). While some of these factors are unique to elite sport, burnout is unfortunately not exclusive to professional athletes as youth who are extensively involved in sport are also susceptible to feelings of burnout. An examination of burnout among thirty-two competitive junior tennis players demonstrated that players who were burnt out had less input into training, were lower in external motivation and higher in amotivation, reported being more withdrawn, felt greater concern over mistakes, perceived greater parental criticism and expectations, possessed lower personal standards, and were less likely to use planning coping strategies (Gould, Tuffey, Udry, & Loehr, 1996a).

There are two perspectives most commonly used to conceptualize athlete burnout. The stress perspective proposes that burnout (particularly exhaustion) occurs as a response to chronic stress (Smith, 1986). This idea that stress and burnout are related has been supported by other research. Gustafsson, Sagar, and Stenling (2016) explored fear of failure in highly competitive junior athletes, and the association with psychological stress and burnout. Results show that the fear of experiencing shame and embarrassment had a significant effect on perceived psychological stress and the burnout dimension of reduced sense of accomplishment. Additionally, athletes who had higher rates of fear of failure scored higher on burnout than athletes with lower levels. These findings indicate that fear of failure is likely related to burnout and psychological stress (Gustafsson et al., 2016).
However, athletes may learn to cope with stressors through an experiential process that consists of learning through trial and error, reflective practice, and coping outcomes such as consistent performance, perceived independence in coping, and persistence in coping (Tamminen & Holt, 2012).

Although stress is certainly an important factor, it provides a narrow understanding of athlete burnout. Consequently, other frameworks have emerged from the acknowledgement that athlete burnout is more than simply a response to stress. The commitment perspective suggests that athletes can be involved in sport for reasons related to sport attraction (they want to participate), reasons related to sport entrapment (they feel obliged to participate), or some combination of the two (Raedeke, 1997). Athletes can be burnout candidates if they are committed for entrapment-related reasons, where they feel entrapped by their athletic role, which occurs when they do not really want to participate but feel obliged to maintain their sport involvement (Raedeke, 1997). This is based on previous work by Schmidt and Stein (1991) who found three primary determinants of athlete commitment: a) satisfaction based on costs and rewards of sport, b) resources athletes have invested in sport, and c) attractiveness of alternative options.

This research suggests that sport entrapment occurs when athletes do not really enjoy sport due to high costs and low rewards, but maintain their involvement because of their high investments (i.e. time, effort) and a perceived a lack of attractive alternatives. High perceived social constraints may also serve as factors influencing sport entrapment, which athletes may encounter if they feel obligated to others (e.g. parents, teammates) who expect them to continue in sport (Raedeke, 1997).
Previous research investigating athlete burnout (Creswell & Eklund, 2006; Gustafsson, Kenttä, & Hassmén, 2011; Martin & Horn, 2013) has thus far found an association with negative outcomes. Cresswell and Eklund (2006), found some instances of extreme physical exhaustion, injury, and sickness among professional rugby players beyond the degree of exhaustion expected at an elite level. The researchers also found low professional efficacy among some rugby players who were experiencing burnout. Characteristics of reduced accomplishment and sport devaluation were more prominent in this research than in previous work on athlete burnout (Gould, Tuffey, Udry, & Loehr, 1996b).

However, it must be noted that burnout is related to stress and motivation and thus negative outcomes may not be inevitable if variables related to stress and motivation are more favorable. Positive outcomes may still result if athlete burnout is properly insulated by contextual influences such as supportive relationships and individual assets such as positive values. Such possibilities have yet to be explored and could shed new light on the impact of athlete burnout.

*Competitive anxiety*

Another reported experience of athletes is anxiety. Anxiety is an emotional response consisting of cognitive concerns and physiological arousal to a perceived threat (Smoll & Smith, 1996) and has received considerable research attention within sport psychology. Research suggests that social anxiety may be elicited in athletic or sporting situations where the performance is placed under evaluation (Norton, Hope, & Weeks, 2004). Interestingly, however, social anxiety may be related to avoidance of individual sports, but not team sports where attention from evaluative others would be diffused.
among many competitors (Norton, Burns, Hope, & Bauer, 2000). Given that a physically inactive lifestyle is a risk factor for a number of health conditions, such as weight gain and obesity, osteoporosis, and cardiovascular disease (Miles, 2007), and physical activity has shown psychotherapeutic benefits such as decreased depression (Paluska & Schwenk, 2000) and higher self-esteem (Tremblay, Inman, & Willms, 2000), such avoidance behavior is certainly concerning.

Sport settings can provide a fertile ground for social anxiety (Norton et al., 2004), but other research has explored competitive anxiety and its impact on sport performance. It is important to distinguish between competitive trait anxiety, which refers to a relatively stable personality disposition (Martens, 1977), and competitive state anxiety, which refers to symptoms of anxiety that are experiences in a particular sporting context (Simon & Martens, 1979). Competitive state anxiety features a cognitive component that consists of negative expectations, self-doubt, and concerns about the self, the performance, and the consequences of failing in sport (Martinengo, Bobbio, & Marino, 2012). The somatic aspect of anxiety refers to the athlete’s perception of physiological changes such as increased heart rate and muscular tension caused by activation of the autonomic nervous system that occurs before or during competition (Martinengo et al., 2012).

In examining the impact of competitive state anxiety on swimming performance in male high school swimmers aged 14-19 years, Mabweazara, Leach, and Andrews (2016) found that both cognitive and somatic components of anxiety predicted performance, with somatic anxiety emerging as the significant predictor of swimmer’s performance. This supported the authors’ hypothesis that because participants were
competing in the relatively short 50-m individual event, which may not allow sufficient
time for cognitive anxiety to have a detrimental impact, somatic anxiety would best
predict swimming performance.

Other recent research has looked at the influence of competitive anxiety on the
performance of basketball players across national, state, district, and university levels
(Parnabas, 2015). Results showed that national players, who may be likely to have greater
anxiety management skills, had the lowest levels of competitive anxiety while university
players had the highest levels of anxiety. Across the entire sample of players, a negative
correlation emerged between competitive state anxiety and performance, wherein
performance tended to decrease when cognitive and somatic anxiety increased (Parnabas,
2015). The findings of these studies highlight the role that competitive anxiety can play in
performance, especially if an athlete lacks proper anxiety management skills.

It is critical to note, however, that anxiety differs in how it impacts athletes –
where one athlete may perceive it as debilitating, another may perceive it as tolerable or
even helpful to performance. How athletes actually perceive their anxiety is therefore
important in determining its impact (Jones, 1991; Jones & Hanton, 2001).

*The coach-athlete relationship*

Organized sport is an activity in which youth usually participate in the presence of
others under the guidance of a coach or leader. By helping to shape the sport environment
in which so many youth and adolescents are extensively involved (Guèvremont et al.,
2008), coaches play a critical and influential role in facilitating positive developmental
outcomes for young athletes (Vella, Oades, & Crowe, 2013). Coaches are indeed
generally considered the second most influential adult in the lives of youth behind parents (Petitpas et al., 2005).

Fraser-Thomas and colleagues (2008a), in seeking to understand training patterns of athletes and the role of significant others (coaches, parents, peers, and siblings) in youth development, explored both dropout and engaged swimmers aged 13-18 years. They found that only dropout swimmers had experienced explicit coach favoritism and limited one-on-one coaching. However, both groups described supportive coaches who possessed good communication skills. Having two coaches with very different personalities may mitigate some of the detrimental impacts of negative coach behaviors: engaged swimmers suggested that having two diverse coaches created an element of balance. Athlete development models such as the DMSP described above stress the importance of positive coach-athlete relationships during the adolescent years. As found by Fraser-Thomas et al., (2008a), engaged swimmers often experienced this interaction while dropout swimmers did not.

Coaches and athletes are interdependent in that athletes seek the knowledge, experience, and competence of the coach, while coaches need to transfer their competence and athlete ability into success (Philippe & Seiler, 2006). The two parties must therefore work together to achieve goals. Jowett and Cockerill (2003) proposed that the coach-athlete relationship is comprised of 3Cs, which are respectively linked to emotional, cognitive and behavioral aspects. Closeness refers to the coach and athlete being emotionally close based on mutual trust and being liked, cared for, and valued. Commitment refers to the intention of both the coach and athlete to develop and maintain their relationship through honesty, communication, sacrifice and mutual understanding.
Complementarity entails cooperative interactions that allow the coach and athlete to channel their respective efforts toward accomplishing goals (Jowett & Ntoumanis, 2004). It is not surprising that research (Hampson & Jowett, 2014) suggests that coaches should seek to create an interpersonal environment featuring caring, supporting, respecting, trusting, and appreciating athletes because if athletes perceive that their coaches are close to them and have long-term plans for their development, they are more likely to feel like an important and capable member of the team (Hampson & Jowett, 2014).

The coach-athlete relationship has been shown to play a key role in athletes’ physical and psychosocial development, above and beyond their athletic performance (Jowett & Cockerill, 2002; 2003). For example, in their examination of Olympic medalists’ perspective of the coach-athlete relationship, Jowett and Cockerill (2003) found that even at such an elite level of sport, the interpersonal relationship between coach and athlete is an important factor that contributes to the athlete’s development. Their results did not support the commonly held stereotypical perception that the relationship between coaches and athletes at the elite level is impersonal, authoritarian, and dependent upon success. In line with the research of Hampson and Jowett (2014), these researchers found that successful relationships between Olympic medalists and their respective coaches feature mutual respect, trust, care, concern, support, communication, shared knowledge or understanding, and clear roles and tasks (Jowett & Cockerill, 2003).

Quality coaching has the capability to promote the athlete’s skills not only in terms of performance improvements such as attaining personal bests or winning medals, but also in terms of personal and social development, such as feelings of self-satisfaction, self-worth and self-reliance (Philippe & Seiler, 2006). However, while the quality of
coaching is an important factor, how an athlete views the coach may be just as important. This perception can strongly affect athletes’ attitude, motivation and emotional responses toward their coach and their sport (Jowett, 2009; Smoll, Magill, & Ash, 1988; Smoll and Smith, 1989; Stuntz & Spearance, 2007). The relationship between coach and athlete can impact the athlete’s personal experiences (Arsenault, MacDonald, & Reed-Jones, 2017). These researchers investigated the developmental experiences of university sport athletes, and found that commitment within the coach-athlete relationship emerged as a positive predictor of initiative, interpersonal relationships, adult networks and social capital, and teamwork and social skills. Conversely, high levels of complementarity were associated with lower rates of negative experiences such as negative peer interactions, social exclusion, and inappropriate adult behaviors (Arsenault et al., 2017). These researchers therefore suggested that university coaches interested in promoting positive experiences for their athletes should focus on fostering commitment and complementarity within their respective sport environment.

Healthy coach-athlete relationships can help nurture athletes’ growth and provide valuable support during times of physical, psychological and emotional difficulty for an athlete, such as competitive failure, injury, burnout or career termination (Jowett, 2005). This relationship has been shown to predict the developmental experiences of university sport athletes (Arsenault et al., 2017). Commitment emerged as a positive predictor of initiative, interpersonal relationships, adult networks and social capital, and teamwork and social skills. Conversely, high levels of complementarity were associated with lower rates of negative experiences such as negative peer interactions, social exclusion, and inappropriate adult behaviors (Arsenault et al., 2017). The researchers thus suggested that
university coaches interested in promoting positive experiences for their athletes should focus on fostering commitment and complementarity within the sport environment.

Not all coach-athlete relationships, unfortunately, are positive and healthy. Negative relationships may be characterized by an autocratic or controlling coach style, blatant coach favoritism, intimidating or inappropriate coach behavior, poor coach work ethic and modeling skills, low support and encouragement, and lack of communication and one-on-one engagement (Fraser-Thomas et al., 2005; 2008; Fraser-Thomas & Côté, 2009). Such factors must be acknowledged when considering the influence of coach-athlete relationships on the positive development of youth.
Rationale and Purpose

Much of the research on youth development in sport has focused on positive experiences within sport and how they can promote PYD. There is consequently a scarcity of research exploring the role of challenges faced in sport and the ability of such challenges (e.g. negative experiences) to positively impact development. As the relationship between negative sport experiences and PYD has been unexplored in youth sport research, the present study aimed to explore the possible relationship between negative sport experiences and PYD. It sought to examine if three sport experiences – athlete burnout, competitive anxiety, and negative coach-athlete relationships – are related to positive outcomes as measured by the developmental assets framework.

Based on previous research in the youth sport literature (Gustafsson et al., 2011; Parnabas, 2015; Fraser-Thomas et al., 2005; 2008), it was expected that high rates of these three experiences would be negatively correlated to positive youth development.
Method

Participants

Male and female youth sport participants (n=72; 40 male, 32 female) between the ages of 15-22 years (M = 16.6, SD = 1.70) were recruited for the present study. Inclusion criteria for participants included all youth within this age range who were currently or recently involved in a team or individual sport, regardless of skill or competitive level. No inclusion preference was given to youth of particular competitive level, race/ethnicity, or socioeconomic status. Participants were recruited from a variety both team and individual sports. Team sports included hockey (n=20), soccer (n=10), basketball (n=6), volleyball (n=4), softball (n=3), baseball (n=2), badminton (n=2), curling (n=2), ringette (n=2), and rugby (n=2). Individual sports included wrestling (n=4), gymnastics (n=3), karate (n=1), mountain biking (n=1), skiing (n=1), speed skating (n=1), swimming (n=1), and track and field (n=1). The six participants who did not indicate their sport all completed the surveys on-site, and expressed to the researcher that they were not involved in organized sport per se, but still considered themselves to be physically active. Only two of these six participants had withdrawn their involvement in organized sport; they could be considered the only “dropouts” (n=2). The number of participants who are still involved in sport, then, far exceed those who are not (n=66 and n=6, respectively). Participants also reported their years of experience (M = 8.9, SD 4.08) in their chosen sport. The majority of the participants (n=66) hailed from Prince Edward Island, though some were competing elsewhere at the time of their involvement. Other locales included Alberta (n=2); New Brunswick (n=2); British Columbia (n=2); Florida (n=1); and New
South Wales, Australia (n=1). Fifty-five of the participants identified themselves as Caucasian, while the remaining participants (n=17) did not report their race/ethnicity.

Procedure

Prior to commencing the recruitment process, study procedures were approved by the University of Prince Edward Island Research Ethics Board. Participants were recruited using a multi-faceted approach. The recruitment process began when the primary researcher contacted the executive director of the provincial sport organization to outline the study and provide the letter of information describing the research objectives. The director then disseminated the information to the members of the organization. Coaches were encouraged to pass along information to their athletes, who were invited to contact the researcher if they were interested in participating or wanted to learn more. The researcher also contacted university sport coaches, to provide them with the letter of information that they could pass along to their athletes. The researcher sent this letter to a strength and conditioning coach, and an athletic therapist, both of whom work with young athletes within the desired age range. A showcase event for elite male and female hockey players offered the researcher an opportunity to invite interested players to participate. Brochures describing the study were placed around the university campus and in public sport settings such as arenas, gyms, soccer complexes, and indoor multisport facilities. Social media (i.e. Facebook) was used as recruitment tool. An interview with CBC offered much wider exposure of the study. An invitation to a local Leadership Conference that gathered high school athletes from across the region provided the researcher an opportunity to describe the study and invite interested athletes to participate; so too did an invitation to a local high school education class.
Regardless of how they were recruited, participants were required to complete six surveys either in-person or through an online survey platform. Once participants had agreed to participate, they were provided with the letter of information (Appendix I) and informed consent form (Appendix II). The former outlined the study and assured participants that their involvement was voluntary and they could withdraw at any time without consequence; if they did so, their information was immediately destroyed. The informed consent form allowed participants to confirm that their questions or concerns had been sufficiently addressed, they understood the purpose of the study, and consented to participate. After reading the letter of information and consent form, participants were asked to complete a demographic form (Appendix III). This form collected information on the following variables: age, sex, province/state, sport, years of experience in that sport, and race/ethnicity. Upon completion of the demographic information, participants completed the four surveys (Appendix IV-VII) for the study (see Materials section).

Forty-two participants completed surveys in-person. Initial on-site data collection took place at the Leadership Conference, where six athletes volunteered to participate, and they completed surveys in the order outlined above. The next on-site data collection occurred during a visit to a local high school education class, where thirty-six students completed the surveys. Nearly all of the students present that day chose to participate, and the most had at least some recent sport experience. Across this entire cohort of participants who filled out surveys in-person, the majority did so in their entirety.

Besides the data collected at these two locales, the various other recruitment strategies yielded thirty participants who completed surveys using the online platform. They were provided with a unique login ID that granted them access to the survey links,
which were housed in the University server and completed using LimeSurvey software. Upon logging in, participants were given the letter of information and consent form, followed by the completion of the four surveys in the same order as previously outlined. See Figure 2 for a depiction of the survey order. LimeSurvey allowed the researcher to view participant responses for each survey, but participant data remained anonymous and confidential throughout the study. Participants generally completed the surveys without difficulty in less than thirty minutes total.

![Survey Order Diagram]

Figure 2. Order of the surveys administered to participants.

**Materials**

*Developmental Assets Profile (DAP).* This measure of the forty developmental assets contains fifty-eight items across eight asset categories and gives quantitative scores for each (Search Institute, 2004). Internal assets are comprised of commitment to learning (7 items), positive identity (6), social competencies (8), and positive values (11). External assets are comprised of support (7 items), empowerment (6), constructive use of time (4), and boundaries and expectations (9). Respondents indicate their agreement with items on
a scale anchored by 0 (“not at all” or “rarely”) and 3 (“extremely” or “almost always”).

The present study had Cronbach reliability coefficients ranging from 0.36-0.85 for the eight asset categories; the broader categories of internal and external assets had reliabilities of 0.92 and 0.91, respectively.

* Athlete Burnout Questionnaire (ABQ). This measure contains fifteen items across the three subscales of athlete burnout: physical and/or emotional exhaustion (5 items: “I feel physically worn out from sport”), sport devaluation (5 items: “I don’t care as much about my performance as I used to”), and reduced athletic accomplishment (5 items: “I am not achieving much in sport”). Athletes respond to a question asking them how often they feel this way on a 5-point scale anchored by 1 (“almost never”) and 5 (“almost always”). This measure can be tailored to any specific sport and athletes respond with their primary sport in mind. Although it was initially developed and tested for use in an adolescent athlete population, it has shown adequate reliability and validity across populations (Martin & Horn, 2013). Cronbach reliability coefficients in the present study ranged from 0.69-0.85 for the three subscales (Table 1).

* Competitive State Anxiety Inventory (CSAI-2R). The original Competitive State Anxiety Inventory-2 was plagued by questions surrounding its construct and factorial validity, leading to the creation of the CSAI-2R (Lundqvist & Hassmén, 2005). The revised version has seventeen items across the three factors of competitive anxiety: cognitive anxiety (5 items: “I am concerned about performing poorly”), somatic anxiety (7 items: “My body feels tense”), and self-confidence (5 items: “I feel self-confident”). Athletes indicate agreement on a 4-point scale from 1 (“not at all”) to 4 (“very much”). The revised version has shown greater psychometric soundness than its predecessor
(Lundqvist & Hassmén, 2005), with acceptable reliability (Martinengo et al., 2012). Cronbach reliabilities in the present study ranged from 0.87-0.92 for the three subscales (Table 1).

**Coach-Athlete Relationship Questionnaire (CART-Q).** Though the CART-Q can be used to assess the coach-athlete relationship from the perspective of both coach and athlete, it was used in the present study to explore only the athlete’s perception of the relationship with their coach. It contains eleven items across the three factors of the relationship: closeness (4 items: “I like my coach”), commitment (3 items: “I feel that my sport career is promising with my coach”), and complementarity (“When I am coached by my coach, I am at ease”). Athletes respond on a 7-point scale ranging from 1 (“strongly disagree”) to 7 (“strongly agree”). This measure has shown satisfactory validity and reliability (Jowett & Ntoumanis, 2004). Cronbach reliabilities in the present study ranged from 0.86-0.90 for the three subscales (Table 1).

**Data analysis**

Stepwise multiple regression analyses were conducted to estimate the relationship among variables. The independent variables (demographics, CSAI-2R, CART-Q, ABQ) were included in models and used as predictors of the dependent variables – subscales of the DAP. The broader asset categories of internal and external assets were also used as dependent variables after each of the DAP subscales had been used. Such an approach can be particularly useful in exploring which predictors seem to provide a good fit. Given that the potential relationships between burnout, competitive anxiety, negative coach-athlete relationships, and positive youth development are unknown, a method which builds a model is preferred over a method which aims to test a model (Tabachnick &
Fidell, 2007). Stepwise regression was thus chosen over other methods. Analyses were conducted using the SPSS 23 software package.
Results

Overview of descriptive statistics

Overall, the data suggests that participants had mostly positive experiences in sport (Table 1). Mean scores for the three sport measures burnout, anxiety, and coach-athlete relationships indicate generally positive experiences. Specifically, scores for the CSAI-2R subscales ranged from 20.04-27.27 out of 40. Scores for the CART-Q subscales ranged from 5.13-5.67 out of 7. Scores for the ABQ ranged from 2.07-2.58 out of 5. High scores on the CART-Q reflect a positive view of the coach-athlete relationship. Although the finding that participants report positive experiences in sport is encouraging, it makes exploring the influence of negative sport experiences challenging.

Table 1. Descriptive statistics and Cronbach reliability coefficients of the CSAI-2R, CART-Q and ABQ subscales

<table>
<thead>
<tr>
<th>Subscale</th>
<th>M</th>
<th>SD</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive anxiety – CSAI-2R</td>
<td>26.76</td>
<td>8.20</td>
<td>.87</td>
</tr>
<tr>
<td>Somatic anxiety – CSAI-2R</td>
<td>20.04</td>
<td>7.96</td>
<td>.92</td>
</tr>
<tr>
<td>Self-confidence – CSAI-2R</td>
<td>27.27</td>
<td>10.27</td>
<td>.92</td>
</tr>
<tr>
<td>Closeness – CART-Q</td>
<td>5.67</td>
<td>1.39</td>
<td>.90</td>
</tr>
<tr>
<td>Commitment – CART-Q</td>
<td>5.13</td>
<td>1.62</td>
<td>.86</td>
</tr>
<tr>
<td>Complementarity – CART-Q</td>
<td>5.48</td>
<td>1.35</td>
<td>.88</td>
</tr>
<tr>
<td>Physical/emotional exhaustion – ABQ</td>
<td>2.58</td>
<td>.85</td>
<td>.85</td>
</tr>
<tr>
<td>Sport devaluation – ABQ</td>
<td>2.07</td>
<td>.90</td>
<td>.85</td>
</tr>
<tr>
<td>Reduced athletic accomplishment – ABQ</td>
<td>2.26</td>
<td>.69</td>
<td>.69</td>
</tr>
</tbody>
</table>

1 Likert scale anchors between 1-4 (scored from 10-40)
2 Likert scale anchors between 1-7
3 Likert scale anchors between 1-5
Self-confidence scored highest on the CSAI-2R (M = 27.27), followed by the cognitive anxiety (M = 26.76) and somatic anxiety (M = 20.04) subscales respectively. Closeness scored highest of the CART-Q subscales (M = 5.67), followed by the complementarity (M = 5.48) and commitment (M = 5.13) subscales respectively. Physical/emotional exhaustion scored highest on the ABQ (M 2.58), followed by the reduced accomplishment (M = 2.26) and sport devaluation (M = 2.07) subscales respectively.

Cronbach reliability coefficients for the CSAI-2R ranged from .87 to .92. Reliability coefficients for the CART-Q ranged from .86 to .90. Reliability coefficients for the ABQ ranged from .69 to .85 (Table 1). These values illustrate an acceptable degree of reliability based on previous work (Vierimaa, Erickson, Côté, & Gilbert, 2012; Raedeke & Smith, 2001; 2004).

Among the subscales of the DAP, each representing one of eight asset categories, means ranged from 1.82 (constructive use of time) to 2.48 (boundaries and expectations) (Table 2). The four internal asset subscales had mean scores of 2.27, 2.29, 2.30, and 2.35; while the four external asset subscales had mean scores of 1.82, 2.45, 2.46, and 2.48. Means for the internal and external asset categories were 2.30 and 2.42 respectively. These results suggest that participants are experiencing generally positive development. The lowest subscale mean, constructive use of time, was still 1.82, closer to the upper range rather than the lower.

Cronbach reliability coefficients for the DAP subscales ranged from .36 to .85. Constructive use of time had the lowest reliability; it was the only subscale below 0.7, generally deemed a suitable cut-off for acceptable internal consistency (Kline, 2000).
Due to the low reliability of this subscale, the researchers suggest that its results should be interpreted with caution. It should also be noted that the subscale has only four items, which may partially explain its low reliability. Interestingly, constructive use of time also showed the lowest mean score (M = 1.82), while boundaries and expectations had both the highest mean score (M = 2.48) and reliability (α = .85). The broad categories of internal and external assets had respective reliability coefficients of .92 and .91.

Table 2. Descriptive statistics and reliability coefficients of the DAP subscales

<table>
<thead>
<tr>
<th>Subscale</th>
<th>M</th>
<th>SD</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commitment to learning</td>
<td>2.35</td>
<td>.40</td>
<td>.72</td>
</tr>
<tr>
<td>Positive values</td>
<td>2.29</td>
<td>.38</td>
<td>.83</td>
</tr>
<tr>
<td>Social competencies</td>
<td>2.30</td>
<td>.42</td>
<td>.81</td>
</tr>
<tr>
<td>Positive identity</td>
<td>2.27</td>
<td>.47</td>
<td>.78</td>
</tr>
<tr>
<td>Support</td>
<td>2.46</td>
<td>.50</td>
<td>.80</td>
</tr>
<tr>
<td>Empowerment</td>
<td>2.45</td>
<td>.45</td>
<td>.70</td>
</tr>
<tr>
<td>Boundaries and expectations</td>
<td>2.48</td>
<td>.51</td>
<td>.85</td>
</tr>
<tr>
<td>Constructive use of time</td>
<td>1.82</td>
<td>.58</td>
<td>.36</td>
</tr>
<tr>
<td>Internal</td>
<td>2.30</td>
<td>.38</td>
<td>.92</td>
</tr>
<tr>
<td>External</td>
<td>2.42</td>
<td>.42</td>
<td>.91</td>
</tr>
</tbody>
</table>

1 Likert scale anchors between 0-3

Correlations

Examining the correlations between subscales reveals low to high relationships; with Pearson coefficients ranging from -.34 to .90 (Table 3). The reduced athletic accomplishment subscale of the ABQ had a correlation of -.34 with the closeness subscale of the CART-Q, significant at the p < .001 level. The support subscale of the
DAP had a correlation of .90 with the broad category of internal assets on the DAP, significant at the $p < .001$ level. The strength of this correlation implies multicollinearity, but the internal assets subscale is a higher order factor, and across all of the correlations, no other variables reached the threshold of multicollinearity used in the study ($r \geq .90$), consistent with previous research (Sullivan, LaForge-MacKenzie, & Marini, 2015).

The three subscales of the CART-Q were the only independent variables that showed significant correlations ($p < .001$) with a dependent variable subscale (Table 3). All three were significantly correlated with empowerment, with Pearson coefficients of .33, .37, and .38 for closeness, commitment, and complementarity, respectively.
<table>
<thead>
<tr>
<th></th>
<th>ABQex</th>
<th>ABQacc</th>
<th>ABQdev</th>
<th>CSAIcog</th>
<th>CSAIsom</th>
<th>CSAIsc</th>
<th>CARTQclo</th>
<th>CARTQcomm</th>
<th>CARTQcompl</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABQex</td>
<td>1.00</td>
<td>.30**</td>
<td>.41**</td>
<td>.17</td>
<td>.08</td>
<td>-.15</td>
<td>.05</td>
<td>.05</td>
<td>-.07</td>
</tr>
<tr>
<td>ABQacc</td>
<td>-</td>
<td>1.00</td>
<td>.57**</td>
<td>.12</td>
<td>.22</td>
<td>-.01</td>
<td>-.34**</td>
<td>-.33**</td>
<td>-.23*</td>
</tr>
<tr>
<td>ABQdev</td>
<td>-</td>
<td>-</td>
<td>1.00</td>
<td>.06</td>
<td>.17</td>
<td>-.15</td>
<td>-.33**</td>
<td>-.21</td>
<td>-.21</td>
</tr>
<tr>
<td>CSAIcog</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1.00</td>
<td>.66**</td>
<td>-.14</td>
<td>.08</td>
<td>.06</td>
<td>-.01</td>
</tr>
<tr>
<td>CSAIsom</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1.00</td>
<td>-.18</td>
<td>.11</td>
<td>.01</td>
<td>-.04</td>
</tr>
<tr>
<td>CSAIsc</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1.00</td>
<td>-.05</td>
<td>.02</td>
<td>.10</td>
</tr>
<tr>
<td>CARTQclo</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1.00</td>
<td>.78**</td>
<td>.74**</td>
</tr>
<tr>
<td>CARTQcomm</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1.00</td>
<td>.82**</td>
</tr>
<tr>
<td>CARTQcompl</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1.00</td>
</tr>
<tr>
<td>Support</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Empower</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Bound</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>UseTime</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>CommitL</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>PosValu</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>SocComp</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>PosID</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Internal</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>External</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Support</td>
<td>Empower</td>
<td>Bound</td>
<td>UseTime</td>
<td>CommitL</td>
<td>PosValu</td>
<td>SocComp</td>
<td>PosID</td>
<td>Internal</td>
<td>External</td>
</tr>
<tr>
<td>---------</td>
<td>---------</td>
<td>-------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td>-------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td>.06</td>
<td>.06</td>
<td>.13</td>
<td>.11</td>
<td>-.11</td>
<td>.03</td>
<td>-.01</td>
<td>.19</td>
<td>.12</td>
<td>.08</td>
</tr>
<tr>
<td>.00</td>
<td>-.02</td>
<td>-.01</td>
<td>-.02</td>
<td>-.06</td>
<td>-.02</td>
<td>-.04</td>
<td>.01</td>
<td>-.02</td>
<td></td>
</tr>
<tr>
<td>-.10</td>
<td>-.10</td>
<td>-.03</td>
<td>.05</td>
<td>-.03</td>
<td>.03</td>
<td>.07</td>
<td>.03</td>
<td>-.05</td>
<td>.01</td>
</tr>
<tr>
<td>.00</td>
<td>.03</td>
<td>.04</td>
<td>-.02</td>
<td>.04</td>
<td>.02</td>
<td>-.06</td>
<td>-.10</td>
<td>.03</td>
<td>.03</td>
</tr>
<tr>
<td>-.04</td>
<td>-.06</td>
<td>-.07</td>
<td>.01</td>
<td>-.06</td>
<td>.08</td>
<td>.04</td>
<td>-.03</td>
<td>.05</td>
<td>.00</td>
</tr>
<tr>
<td>-.09</td>
<td>.01</td>
<td>-.16</td>
<td>-.03</td>
<td>.05</td>
<td>-.19</td>
<td>-.04</td>
<td>-.14</td>
<td>-.02</td>
<td>-.10</td>
</tr>
<tr>
<td>.11</td>
<td>.33**</td>
<td>.18</td>
<td>.13</td>
<td>.03</td>
<td>.17</td>
<td>.12</td>
<td>.12</td>
<td>.18</td>
<td>.18</td>
</tr>
<tr>
<td>.09</td>
<td>.37**</td>
<td>.22</td>
<td>.18</td>
<td>-.04</td>
<td>.07</td>
<td>-.01</td>
<td>.11</td>
<td>.15</td>
<td>.15</td>
</tr>
<tr>
<td>.10</td>
<td>.38**</td>
<td>.18</td>
<td>.22</td>
<td>.01</td>
<td>.06</td>
<td>.04</td>
<td>-.07</td>
<td>.14</td>
<td>.12</td>
</tr>
<tr>
<td>1.00</td>
<td>.54**</td>
<td>.85**</td>
<td>.55**</td>
<td>.31**</td>
<td>.47**</td>
<td>.35**</td>
<td>.23</td>
<td>.90**</td>
<td>.66**</td>
</tr>
<tr>
<td>-</td>
<td>1.00</td>
<td>.59**</td>
<td>.39**</td>
<td>.47**</td>
<td>.59**</td>
<td>.46**</td>
<td>.41**</td>
<td>.57**</td>
<td>.74**</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>1.00</td>
<td>.54**</td>
<td>.31**</td>
<td>.47**</td>
<td>.34**</td>
<td>.18</td>
<td>.80**</td>
<td>.66**</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1.00</td>
<td>.24**</td>
<td>.43**</td>
<td>.35**</td>
<td>.05</td>
<td>.66**</td>
<td>.53**</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1.00</td>
<td>.63**</td>
<td>.59**</td>
<td>.39**</td>
<td>.36**</td>
<td>.71**</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1.00</td>
<td>.79**</td>
<td>.54**</td>
<td>.59**</td>
<td>.84**</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1.00</td>
<td>.41**</td>
<td>.46**</td>
<td>.77**</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1.00</td>
<td>.32**</td>
<td>.59**</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1.00</td>
<td>.74**</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1.00</td>
</tr>
</tbody>
</table>
Regression analyses

Stepwise multiple regression analyses estimated the relationship among variables. The subscales of the CART-Q, CSAI-2R, and ABQ served as independent variables and the subscales of the DAP served as dependent variables in the models that were run. Multiple regression analyses determined which independent variables served as predictors of the dependent variables.

The lone predictor variable that emerged from data analyses was the complementarity subscale of the CART-Q, which showed a positive association with the dependent variable empowerment, as evident by the $r^2$ and beta values (Table 4). Complementarity explained approximately 13% of the variance found within this model. Across all of the models tested, no other variables emerged as significant predictors. Given that the relationship between complementarity and empowerment was positive, higher scores on the former could potentially contribute to higher scores on the latter.

Table 4. Stepwise multiple regression analyses predicting the DAP subscales

<table>
<thead>
<tr>
<th>DAP subscale</th>
<th>Significant Predictor</th>
<th>MS</th>
<th>$r^2$</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Empowerment</td>
<td>CARTQcompl</td>
<td>2.09</td>
<td>.14</td>
<td>.13</td>
</tr>
</tbody>
</table>
**Discussion**

Much of the research on youth development in sport has focused on positive sport experiences and their influence on PYD, which has resulted in less attention being given to the impact that negative sport experiences have on development. Therefore, the present study sought to explore if three sport experiences – burnout, competitive anxiety, and negative coach-athlete relationships – were related to positive developmental outcomes for youth. This study was guided by the hypothesis that high rates of these three experiences would demonstrate a negative association to positive youth development. Exploring these associations sought to confirm whether these negative experiences are detrimental to an athlete’s personal development.

The lack of variation within the dependent variables (DAP subscales; Table 2) created difficulties in finding associations between independent and dependent variables which suggest that participants created a homogenous group. The high responses on the measures created a “ceiling-effect” with little variability between participants. Given that regression analyses looked at how developmental outcomes were influenced by negative sport experiences, the homogeneity of the group made it difficult to find patterns within the data. Additionally, the lack of negative sport experiences reported created further analysis difficulties. Across all ten of the models run, only one association emerged between an independent and dependent variable.

Results of the regression analyses saw the complementarity subscale of the CART-Q emerge as the lone predictor variable, as it demonstrated a positive association with the empowerment subscale of the DAP. The emergence of this variable may not be particularly surprising given the important role that coaches play in youth development.
The coach-athlete relationship has been shown to be very influential in the lives of youth (Petitpas et al., 2005), and can nurture athletes’ growth (Jowett, 2005) both in terms of performance as well as psychosocial development (Jowett & Cockerill, 2002; 2003). Patterns of cooperative interaction as represented by complementarity could thus be expected to benefit an athlete, who might feel more empowered by this behavior.

While this finding was encouraging, complementarity within the coach-athlete relationship entails positive interaction. As mentioned above, the purpose of the study was to explore the influence of negative sport experiences, and the lack thereof made it challenging to do so. As can be seen in Table 1, participants generally reported a positive perception of the relationship with their coach, and the fact that complementarity was the only variable that emerged as predictive demonstrates that the results were not as useful with regards to the purpose of the study. That complementarity predicted the positive developmental outcome of empowerment supports research by Arsenault et al. (2017) who found that high levels of complementarity were associated with lower rates of negative experiences. The current finding is in line with previous research on positive coach-athlete relationships (Jowett, 2005; Arsenault et al., 2017), but was not able to identify the impact of negative relationships.

Although the present study did not succeed in exploring negative relationships, previous research has attempted to do so. Kavanagh, Brown, and Jones (2017) investigated the coping responses used by elite male and female athletes in reaction to emotionally abusive behaviors experienced within the coach-athlete relationship and found that learning to cope was a developmental process that allowed athletes to better manage emotions and performance (Kavanagh et al., 2017). Using a qualitative semi-
structured interviews approach, these researchers explored the strategies that athletes adopted when coping with emotional abuse; they found that athletes adopted emotion- and avoidance-focused coping strategies to manage their feelings when confronted with emotional abuse at the hands of their coach. Additionally, athletes perceived that personal growth occurred through facing adversity, as they reported finding personal meaning from making sense of the emotional abuse that they encountered (Kavanagh et al., 2017). It would thus appear that even a coach-athlete relationship marred by emotional abuse can yield a positive outcome of increased coping when athletes use adversity as a means to gain personal strength (Kavanagh et al., 2017).

This is important as it demonstrates that negative coach-athlete relationships are not invariably detrimental to development insofar as athletes are able to cope effectively. These findings are related to previous work which has explored how coping and stress effect the sport experiences of athletes. This supports work by McDonough, Hadd, Crocker, Holt, Tamminen, and Schonert-Reichl (2013) and Tamminen and Holt (2012), who found that learning about coping was an experiential process consisting of the athletes’ sport experiences and learning through trial and error, reflective practice, and coping outcomes such as independence and persistence in coping. Therefore, some research on athletes’ ability to deal with negative experiences in sport (Tamminen & Holt, 2012; McDonough et al., 2013; Kavanagh et al., 2017) suggests that such experiences may not be invariably harmful, which is both encouraging and important given the lack of negative experiences that emerged in the present study.

As alluded to above, it was hypothesized that high rates of the three experiences explored in the present study would be detrimental to positive youth development.
Unfortunately, the lack of negative sport experiences reported by participants resulted in the researcher not being able to truly test this hypothesis. Based on the results of this study, it remains undetermined whether high rates of burnout and anxiety along with negative coach-athlete relationships are positively or negatively related to PYD as the participants sampled did not report high rates for these variables. In fact, participants reported a generally positive perception of the relationship with their coach, and low rates of burnout and anxiety. Therefore it is currently impossible to make any assumptions regarding the role of these negative experiences and PYD.

**Strengths**

The study participants came from a range of team and individual sports such as hockey, soccer, basketball, wrestling, and mountain biking. As the study sought to better understand the overall experiences of youth within sport, having youth from a wide array of sports was encouraging and is considered a strength. Participants also varied in their level of sport experience as some had up to nineteen years of experience while others had only begun their involvement.

Another strength of the study is the method of data collection. As described above, both face to face and online survey options were provided to offer participants accessible and convenient means with which to document their sport experiences. Participants reported little difficulty in proceeding through the data collection process, suggesting a degree of platform user-friendliness and good comprehension of the surveys.

A multi-faceted approach was used to obtain participants. The primary avenue of recruitment was through the local Provincial Sport Organization, which passed along information to the members under its umbrella. The provincial organization invited the
primary researcher to the Leadership Conference while other data was collected at a local high school. Other sources of data were sought from key informants in the community and resulted in participants coming from a variety of backgrounds. Taken together, these sources of data are believed to represent a range of possible experiences faced by athletes who have been engaged in sport for varied amounts of time.

**Limitations**

Despite the strengths outlined above, limitations need to be acknowledged. First and foremost, the moderate to low scores on the three negative sport measures (Table 2) indicate that the participants had generally positive experiences to date. Given that the study sought to examine the impact of negative sport experiences on the positive development of youth, the lack of negative experiences being reported makes such an examination challenging. While it is encouraging that the current sample reported positive experiences, they limited our ability to truly test the hypothesis and should be interpreted with cautious optimism. Specifically, the findings raise the possibility of social desirability bias in participant responses. Social desirability bias refers to a pervasive tendency for individuals to present themselves in the most favorable manner relative to prevailing social norms and mores (King & Bruner, 2000). Over-reporting positive development while under-reporting the occurrence of negative sport experiences one may have encountered would illustrate this bias. It is possible that participants in this study could be under reporting the prevalence of negative experiences they encountered, creating issues in the validity of the data collected. Given that negative sport experiences have been reported and studied in previous research (Fraser-Thomas & Côté, 2009;
Tamminen et al., 2013), future research should consider how social desirability can infiltrate the results.

Although participants had a range of experience levels, the homogenous nature of the sample in terms of region and race/ethnicity is a limitation of the study. Most participants hailed from Prince Edward Island, and of the participants who chose to identify their race/ethnicity, all did so as Caucasian.

The present study also failed to examine and compare the experiences and outcomes of team and individual sport participants. Examining patterns within participant responses across the two sport groups – team and individual - might have added further depth to the study’s findings. Please see the future directions section for more information on this potential research avenue.

While the online survey platform provided a convenient means for youth to participate in an anonymous and confidential manner, the fact that the surveys were password-protected and thus required links to be sent individually made securing participants en masse challenging. It might have been a more efficient strategy to send out survey links to sport teams or groups to have as many participants complete the surveys.

Additionally, the surveys were completed by participants in a standardized order: the informed consent form; demographic survey; DAP; ABQ; CSAI-2R; and CART-Q. Given that the surveys were not counterbalanced, the possibility of a survey fatigue effect should therefore be acknowledged. Survey fatigue is a component of respondent burden, defined as the time and effort involved in survey participation (Sharp & Frankel, 1983). This can lead to a lower quality of information reported by respondents (Gardner, 2015).
Participants in the present study completed the DAP following the demographic survey, as it was the longest of the surveys at 58 items; nevertheless, the standardized order of the surveys means that the possibility of survey fatigue cannot be ignored.

Though not necessarily a limitation, most participants were still involved in sport. While it is encouraging that they remain involved, their experiences in sport to date may be less representative of the three negative experiences that the study sought to explore. This might be less helpful in trying to investigate the relationship between negative sport experiences and positive youth development. The researchers thus acknowledge that perhaps a different population of youth – those who are no longer involved in sport – would have been more beneficial to study. Recruiting youth who have ceased their sport involvement would prove challenging, but could yield empirically useful findings.

*Future directions*

Given that the recruited sample did not yield negative experiences in sport, future research should focus on identifying a sample of individuals who may have faced experiences of burnout, anxiety, and poor coach-athlete relationships. Doing so would enable researchers to better assess and understand the relationship between negative sport experiences and positive development, which comprised the purpose of the present study. The main issue with recruiting such a sample will remain the identification of these individuals. Given that these individuals are possibly no longer participating in sport, combined with the issues of social desirability mentioned above, recruiting such a sample will remain a challenge for future researchers.

All of the participants who identified their race/ethnicity did so as Caucasian. Future work should also look to expand and include participants from diverse racial
backgrounds. Most participants also hailed from Prince Edward Island and participated in sports dominant to that province, so exploring the sport experiences of athletes from other regions where other sports are popular could be worthwhile.

Additionally, comparisons were not made between participants from team and individual sports and across varying levels of competition. Looking at the experiences and outcomes of team versus individual sport participants and athletes across competitive levels would be a valuable avenue for future research. Concurrent to this proposition, participants in the present study were aged 15-22 years, and thus future work should consider investigating the experiences of sport participants from different age groups. Doing this could allow researchers to better understand patterns that may emerge regarding experiences and outcomes, both positive and negative, across ages in sport.

Finally, future research could look at the interplay between parental involvement, an athlete’s relationship with his or her coach and peers, and their development in sport. Coaches are the second most influential adult in the lives of youth behind only parents (Petitpas et al., 2005) and peer interactions are a crucial aspect of the youth sport setting, so looking at the interaction amongst these influences could prove valuable.

**Conclusion**

Findings from the present study suggest that participants have had mostly positive experiences in sport. Previous research on youth sport (e.g. Fraser-Thomas et al., 2005) has opted to focus on positive sport experiences and their impact on positive development. This study sought an alternative approach by instead focusing on how negative sport experiences may be related to positive youth development. The fact that participants reported generally positive experiences made this exploration challenging;
the present study was unable to support previous research on negative sport experiences (e.g. Tamminen et al., 2013), that found that personal growth can occur through coping with adversity in sport and finding meaning related to the role of sport in the one’s life. The finding that participants have had generally positive experiences in sport to date lends support to other research (Petitpas et al., 2005; Strachan et al., 2009), highlighting the vast potential for sport to promote personal growth in youth participants. It appears that youth participants in the present study are developing in a positive manner, as measured by the developmental assets framework. When considered the positive sport experiences reported by participants, it lends support to the idea of sport as an environment that can nurture asset development (Fraser-Thomas et al., 2005) and healthy development (Fraser-Thomas & Côté, 2009). Organized sport can play a significant role in youth development, both within and out of the sport environment itself, and results of the present study lend support to this idea.

Although results suggest that the positive experiences reported by participants were not automatic or unanimous across the sample, participants did indicate that they have had generally positive sport experiences to date. As noted in the limitations section, the possibility of social desirability bias in participant responses must be acknowledged. Responses on the three measures of negative sport experiences suggest that participants have a positive perception of sport, while scores on the Developmental Assets Profile suggest positive developmental outcomes. Again, although these findings were not invariably positive in nature, the possibility of social desirability playing a factor in the responses of participants cannot be entirely dismissed.
The results of the present study identify complementarity within the coach-athlete relationship as the sole predictor of individual development in youth sport participants. High scores on *complementarity*, where the coach and athlete work toward shared goals, were positively related to higher scores on the developmental outcome of *empowerment*. Research indicates that coaches should seek to create an interpersonal environment in which athletes perceive that their coaches care for their long-term development (Hampson & Jowett, 2014). The finding that complementarity serves as an important predictor of development strengthens our collective understanding of how to promote positive outcomes through sport by nurturing a cooperative coach-athlete relationship.

The bio-ecological systems theory conceptualized by Bronfenbrenner (1977), particularly its encompassed PPCT model, emphasizes how contextual influences can impact the experiences and development of an individual within that specific context. How youth interact with the contextual influences such as coaches and peers illustrates the importance of the environment in influencing development above and beyond the characteristics of that youth. Accordingly, this emphasis on proximal processes and contextual influences aligns the bio-ecological theory with the DMSP, which focuses on the more specific environment of organized youth sport and the underlying processes that can influence the personal (i.e. psychological and psychosocial) and athletic development of youth participants in that environment (Côté et al., 2008). This model highlights the health benefits and psychosocial development that youth can accrue through their involvement in sport (Côté et al., 2008).

The shared emphasis of these two theories on the importance of contextual influences in shaping the early stages of development aligns them with the third
framework used in the present study, the strength-based PYD theoretical perspective. Findings of the present study indicate that participants have had generally positive experiences in sport to date, which would suggest that the contextual influences within their respective sport environments have been of a positive and nurturing nature. Participants also reported positive development as measured by the developmental assets. Given that organized sport has the potential to positive impact youth development (Fraser-Thomas & Côté, 2009; Bruner, Hall, & Côté, 2011), and the fact that the PYD approach can align with the perspectives of the bio-ecological systems theory and DMSP to provide a better understanding of youth development beyond performance outcomes, the findings that the participants in the study have had positive sport experiences and are in the midst of positive and healthy development reinforces the potential of youth sport as an important agent in shaping developmental outcomes.
References


Appendix I

LETTER OF INFORMATION

Exploring Negative Sport Experiences as Predictors of Positive Youth Development

The information below describes a research study and invites you to participate in the research being conducted. Your participation is completely voluntary and you may refuse or withdraw at any time without consequence. You may keep a copy of this form.

The present study will be conducted by Travis McIsaac and Dr. Dany MacDonald at the University of Prince Edward Island, and will explore the relationship between negative sport experiences and positive youth development. This research aims to understand if different types of negative sport experiences relate to positive outcomes.

The present study will examine the relationship between negative sport experiences and positive youth development among approximately 100 youth sport participations aged 15-22 years. These participants will include athletes from different sports and competitive levels. All youth in this age range will be eligible for inclusion. No inclusion preference will be given to youth of a particular skill level, race/ethnicity, or socioeconomic status. Participants will be required to complete five online surveys. The first will obtain basic demographic information such as age, education and province. The remaining four surveys will measure participants’ developmental asset possession, athletic burnout, competitive anxiety and their coach-athlete relationship, respectively. These measures are expected to take approximately 15-20 minutes total to complete. Participant anonymity will be protected by using identification numbers in place of names and any characteristics that may identify participants will not be included in the presentation of the study’s results.

As a reminder, your participation in the study is completely voluntary and you may withdraw at any time without fear of consequence. Should you decide to withdraw, data collected to that point will be immediately destroyed. A summary of results can be provided to you upon your request. Your participation is expected to help provide important information on the role of negative sport experiences in fostering positive outcomes for youth athletes.
Data will be collected primarily using an online format via UPEI LimeSurvey, which will be used to prepare and conduct the surveys and collect participant responses. All data collected will be secured and analyzed at the University of Prince Edward Island and will remain confidential to the research team. At no point will participants’ information be shared with others. All data will be stored in a secure location throughout the entirety of the study. Should the findings be presented at an academic conference, identification numbers will be used in order to protect the anonymity of participants. There are no physical, psychological, economic or social risks associated with participation in this study.

This research study has been reviewed and approved by the Research Ethics Board at the University of Prince Edward Island. Please note that if you have any questions or concerns regarding the ethical conduct of this study, you can contact the UPEI Research Ethics Board at (902) 620-5104 or by email at reb@upei.ca

Travis McIsaac, MSc.
Graduate Student
Department of Applied Human Sciences
University of Prince Edward Island
Email: twmcisaac@upei.ca
Phone: 902-628-5359

Dany MacDonald, PhD
Assistant Professor
Department of Applied Human Sciences
University of Prince Edward Island
Email: danymacdonald@upei.ca
Phone: 902-566-6482
Appendix II

PARTICIPANT INFORMED CONSENT FORM

Exploring Negative Sport Experiences as Predictors of Positive Youth Development

I have read the letter of information and understand the purpose of the current study. I have had the opportunity to ask questions and discuss the study with the researcher(s) and my questions or concerns have been addressed to my satisfaction. I understand that all of the information collected will remain confidential to the research team and that anonymity of my identity will be protected. I understand that there are no physical, psychological, economic or social risks associated with participation in the study. I also understand that my participation is voluntary and I can withdraw at any time or choose not to answer any question without consequence, and that any information collected to that point will be immediately destroyed.

I consent to participate in this research project □
Name: Date:

I would like to receive a summary of the results □
Email:

As parent or guardian, I consent to have the child participate in this research project □
Name: Date:

This research project has been reviewed and approved by the Research Ethics Board at the University of Prince Edward Island. I understand that if I have any questions or concerns regarding the ethical conduct of this study, I can contact the UPEI Research Ethics Board at (902) 620-5104 or by email at reb@upei.ca

Travis McIsaac, MSc.
Graduate Student
Department of Applied Human Sciences
University of Prince Edward Island
Email: twmcisaac@upei.ca
Phone: 902-628-5359

Dany MacDonald, PhD
Assistant Professor
Department of Applied Human Sciences
University of Prince Edward Island
Email: danymacdonald@upei.ca
Phone: 902-566-648
## Appendix III

### Demographic survey

<table>
<thead>
<tr>
<th>Date of Birth (mm/dd/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
</tr>
<tr>
<td>Less than high school</td>
</tr>
<tr>
<td>Some high school</td>
</tr>
<tr>
<td>Completed high school</td>
</tr>
<tr>
<td>Some college/university</td>
</tr>
<tr>
<td>Completed college/university</td>
</tr>
<tr>
<td>Graduate school or higher</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sex</th>
</tr>
</thead>
<tbody>
<tr>
<td>Province</td>
</tr>
<tr>
<td>Race/ethnicity</td>
</tr>
</tbody>
</table>

### How many sports were you involved in?

<table>
<thead>
<tr>
<th>Age 6:</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age 7:</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5+</td>
</tr>
<tr>
<td>Age 8:</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5+</td>
</tr>
<tr>
<td>Age 9:</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5+</td>
</tr>
<tr>
<td>Age 10:</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5+</td>
</tr>
<tr>
<td>Age 11:</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5+</td>
</tr>
<tr>
<td>Age 12:</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5+</td>
</tr>
<tr>
<td>Age 13:</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5+</td>
</tr>
<tr>
<td>Age 14:</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5+</td>
</tr>
<tr>
<td>Age 15:</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5+</td>
</tr>
<tr>
<td>Age 16:</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5+</td>
</tr>
<tr>
<td>Age 17:</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5+</td>
</tr>
<tr>
<td>Age 18:</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5+</td>
</tr>
<tr>
<td>Age 19:</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5+</td>
</tr>
</tbody>
</table>

### Primary sport

### Experience in primary sport

### Highest competitive level (primary sport)
Appendix IV

Developmental Assets Profile (DAP)

Not at All or Rarely (0)  Somewhat or Sometimes (1)
Very or Often (2)        Extremely or Almost Always (3)

If you do not want to answer an item, leave it blank.
But try to answer all items as best you can.

I . . .

1. Stand up for what I believe in.
2. Feel in control of my life and future.
3. Feel good about myself.
4. Avoid things that are dangerous or unhealthy.
5. Enjoy reading or being read to.
6. Build friendships with other people.
7. Care about school.
8. Do my homework.
9. Stay away from tobacco, alcohol, and other drugs.
11. Express my feelings in proper ways.
12. Feel good about my future.
13. Seek advice from my parents.
14. Deal with frustration in positive ways.
15. Overcome challenges in positive ways.
16. Think it is important to help other people.
17. Feel safe and secure at home.
18. Plan ahead and make good choices.
20. Resolve conflicts without anyone getting hurt.
21. Feel valued and appreciated by others.
22. Take responsibility for what I do.
23. Tell the truth even when it is not easy.
24. Accept people who are different from me.
25. Feel safe at school.
I am. . .

27. Developing a sense of purpose in my life.
28. Encouraged to try things that might be good for me.
29. Included in family tasks and decisions.
30. Helping to make my community a better place.
31. Involved in a religious group or activity.
32. Developing good health habits.
33. Encouraged to help others.
34. Involved in a sport, club, or other group.
35. Trying to help solve social problems.
36. Given useful roles and responsibilities.
37. Developing respect for other people.
38. Eager to do well in school and other activities.
39. Sensitive to the needs and feelings of others.
40. Involved in creative things such as music, theater, or art.
41. Serving others in my community.
42. Spending quality time at home with my parent(s).

I have. . .

43. Friends who set good examples for me.
44. A school that gives students clear rules.
45. Adults who are good role models for me.
46. A safe neighborhood.
47. Parent(s) who try to help me succeed.
48. Good neighbors who care about me.
49. A school that cares about kids and encourages them.
50. Teachers who urge me to develop and achieve.
51. Support from adults other than my parents.
52. A family that provides me with clear rules.
53. Parent(s) who urge me to do well in school.
54. A family that gives me love and support.
55. Neighbors who help watch out for me.
56. Parent(s) who are good at talking with me about things.
57. A school that enforces rules fairly.
58. A family that knows where I am and what I am doing.
Appendix V

Athlete Burnout Questionnaire (ABQ)

“How often do you feel this way?”

1 Almost Never  2 Rarely  3 Sometimes  4 Frequently  5 Almost Always

1. I'm accomplishing many worthwhile things in [sport]
   1  2  3  4  5

2. I feel so tired from training that I have trouble finding energy to do other things
   1  2  3  4  5

3. The effort I spend in [sport] would be better spent doing other things
   1  2  3  4  5

4. I feel overly tired from my [sport] participation
   1  2  3  4  5

5. I am not achieving much in [sport]
   1  2  3  4  5

6. I don't care as much about my [sport] performance as I used to
   1  2  3  4  5

7. I am not performing up to my ability in [sport]
   1  2  3  4  5

8. I feel "wiped out" from [sport]
   1  2  3  4  5

9. I'm not into [sport] like I used to be
   1  2  3  4  5

10. I feel physically worn out from [sport]
    1  2  3  4  5

11. I feel less concerned about being successful in [sport] than I used to
    1  2  3  4  5

12. I am exhausted by the mental and physical demands of [sport]
    1  2  3  4  5

13. It seems that no matter what I do, I don't perform as well as I should
    1  2  3  4  5

14. I feel successful at [sport]
    1  2  3  4  5

15. I have negative feelings toward [sport]
    1  2  3  4  5
Appendix VI

**Competitive State Anxiety Inventory (CSAI-2R)**

Reach each statement and select the appropriate number to indicate how you tend to feel before a competition; think of a recent competition or an upcoming event. There are no right or wrong answers, so choose the most accurate answer.

1 Not at all  2 Somewhat  3 Moderately  4 Very much

1. I am concerned I may not do as well in this competition as I could
   1 2 3 4
2. I am concerned about losing
   1 2 3 4
3. I am concerned about choking under pressure
   1 2 3 4
4. I am concerned about performing poorly
   1 2 3 4
5. I am concerned that others will be disappointed in my performance
   1 2 3 4
6. I feel jittery
   1 2 3 4
7. My body feels tense
   1 2 3 4
8. I feel tense in my stomach
   1 2 3 4
9. My heart is racing
   1 2 3 4
10. I feel my stomach sinking
    1 2 3 4
11. My hands are clammy
    1 2 3 4
12. My body feels tight
    1 2 3 4
13. I feel self-confident
    1 2 3 4
14. I’m confident I can meet the challenge
    1 2 3 4
15. I’m confident about performing well
    1 2 3 4
16. I’m confident because I can mentally picture myself reaching my goal
    1 2 3 4
17. I’m confident of coming through under pressure
    1 2 3 4
Appendix VII

Coach-Athlete Relationship Questionnaire (CART-Q)

Strongly Disagree: 1-2  Moderately Agree: 3-5  Strongly Agree: 6-7

1. I am close to my coach
   1  2  3  4  5  6  7

2. I am committed to my coach
   1  2  3  4  5  6  7

3. I like my coach
   1  2  3  4  5  6  7

4. When I am coached by my coach, I am at ease
   1  2  3  4  5  6  7

5. I trust my coach
   1  2  3  4  5  6  7

6. I feel that my sport career is promising with my coach
   1  2  3  4  5  6  7

7. When I am coached by my coach, I am responsive to his/her efforts
   1  2  3  4  5  6  7

8. I respect my coach
   1  2  3  4  5  6  7

9. I appreciate my coach’s sacrifices in order to improve performance
   1  2  3  4  5  6  7

10. When I am coached by my coach, I am ready to do my best
    1  2  3  4  5  6  7

11. When I am coached by my coach, I adopt a friendly stance
    1  2  3  4  5  6  7