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Examining the relationship between life skill development and negative experiences in sport: The influence of resilience

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Examining the Relationship Between Life Skill Development and Negative Experiences in Sport: The Influence of Resilience

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THESIS

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ABSTRACT

A study by Kendellen and Camire (2015) demonstrated that sport participants not only experienced positive outcomes (i.e., development of life skills), but also encounter numerous examples of negative experiences (i.e., anxiety, aggression, negative interactions with coaches, and prioritizing sport over school). Negative experiences have been linked to an increased risk of detrimental outcomes, such as mental and behavioral health concerns. However, there is a paucity of research examining the impact that negative experiences have on positive outcomes. Utilizing a risk and resiliency framework (Fraser et al., 1999), which proposes that individuals have the capability of attaining positive outcomes even when encountering risk factors, the current study examines the relationship between college club sport participants' negative experiences and life skill development, and whether the demonstration of resilience can mitigate the impact of sport risks. A total of 87 university students who participated in college club sports completed an online survey. Results from a series of linear regression analyses indicated that lacking coach support hindered the development of life skills, while the athletic identity positively predicted life skill development. However, findings did not support the inclusion of resilience in moderating the relationship between negative experiences and life skills. Ultimately, the current study supports a continued focus on facilitating positive coach support and developing a more balanced identity for college club sport participants, which would furthermore ensure the positive development of all youth.

Keywords: sport, negative experiences, life skills, positive youth development, resilience

Examining the Relationship Between Life Skill Development and Negative Experiences in

Sport: The Influence of Resilience

Adolescence is a critical developmental period of rapid physical, psychological, and social growth that influences the overall health and wellbeing of youth (ages 15–24; World Health Organization, 2011). Recently the American Academy of Social Work and Social Welfare created the Grand Challenges for Social Work, which placed emphasis on harnessing social work scientific knowledge to solve critical social issues (Padilla & Fong, 2016). Within these Grand Challenges is the initiative related to promoting the *Health Development for All Youth* (Hawkins et al., 2015). One specific approach used to promote the healthy development of youth is known as positive youth development (PYD). As an approach, PYD is defined as a strengths-based conceptualization of development that highlights youth's individual qualities, needs, interests, and goals to facilitate a successful transition into adulthood (Lerner et al., 2014).

Within PYD-based approaches, the ability to develop life skills is often viewed as a critical outcome. Life skills are a collection of skills that enable individuals to overcome the demands and challenges of life (Danish et al., 2004; Kendellen & Camiré, 2017). For instance, life skills include emotional skills, time-management skills, problem-solving skills, collaborative skills, social skills, and leadership skills. These quintessential skills better position youth to make responsible and informed choices, promote healthy lifestyles, as well as acquire critical career skills into adulthood (Gould & Carson, 2008; Jones & Parker, 2014; Newman, 2020).

PYD-based approaches have been utilized in a variety of sport settings and sport-based programs. Research has begun to identify mechanisms and factors that contribute to the development of life skills, particularly within middle school and high school sport settings. For instance, research has indicated that a positive learning environment (Jones & Parker, 2014),

purposeful programming structures (Anderson-Butcher et al., 2018), prosocial role models (Pierce et al., 2020), and social opportunities with peers (Bailey et al., 2013) have each been identified to be key elements in supporting the development of life skills. However, there is a dearth of research that has examined the potential effect of negative experiences in sport and if, and how, these detrimental experiences may ultimately contribute to the development of life skills (Newman et al., 2021). As risk factors, negative experiences in sport increase the chances of deleterious developmental outcomes. These negative outcomes include elevated stress, depression, and substance use (Kerr et al., 2019).

Although a limited amount of research exists related to understanding negative sport experiences, a study by Kendellen & Camiré (2015) helped to shed light on several common detrimental experiences. Their study found that youth involved in high school sport were confronted with negative experiences including sport anxiety, adherence to aggressive and violent behavior in sport, lack of coach support, and reliance on athletic identity. However, the authors also identified that youth simultaneously developed life skills, including time-management skills, social skills, and leadership skills. Further, among youth involved in a summer sport program, Newman et al. (2021) found that challenging and negative experiences provided critical opportunities for the development of life skills. However, these studies did not identify *how* or *why* negative experiences contributed to the development of life skills. One potential hypothesis is that, by providing conditions that mitigate the adverse implications of risk factors (Anthony et al., 2009), resilience might be able to prompt the development of life skills. To address these critical gaps in the research and in alignment with the goal of promoting healthy youth development, the current study examines the influence of negative sport experiences on the development of life skills among college club sport participants.

Negative Experiences in Sport

Sport is often regarded as a positive learning environment for life skills (Camiré & Kendellen, 2016; Coakley, 2011; Holt et al., 2017). Research confirms that properly programmed and facilitated sport helps youth develop skills to enhance physical strength, advance mental potentials, and achieve a variety of laudable health outcomes (Holt et al., 2020). However, detrimental experiences and negative developmental outcomes are also associated with sport participation. Negative experiences commonly are the combination of social interactions and mental stressors (Cardinal et al., 2013; Kendellen & Camiré, 2015). For instance, Fraser-Thomas & Côté (2009) found that among teenagers, negative experiences in sport are often the result of poor relationships with coaches, negative peer influences, parental pressure, and a stressful environment. Similarly, Merkel (2013) found that augmented stress, high rates of attrition, interactions with hypercompetitive peers, and having victory-obsessed coach/parent constitute negative experiences for young athletes (ages 5–24).

Sport anxiety is defined as a predisposition that regards sport participation as frightening and threatening (R. Smith et al., 1995). Research indicates that sport anxiety could be induced by high internal expectations of performance (Wilson & Pritchard, 2005) and external pressure to win (Nite, 2012). For instance, losing high school fame upon the relocation and transition to college, college club sport participants often feel excessive internal expectation and pressure to overperform and reclaim in the competition (Beauchemin, 2014). At the same time, an increased level of anxiety often leads to heightened worry about game loss, judgment, and evaluations (R. Smith et al., 2007). Therefore, an apparent exhibit of sport resentment and aversion is often observed (Conroy et al., 2002; R. Smith et al., 1995). As youth's anxiety increases, their ability to focus on tasks and objectives decreases (Beauchemin, 2014). Overall, sport anxiety increases

the likelihood of participation aversion and distracted attention from primary learning tasks such as developing life skills.

Aggressive and violent behaviors are conduct or actions that carry the intention to cause physical harm or mental damage to others (Allen et al., 2018). Research indicates that college students generally have difficulties recognizing and controlling intense emotions, including anger (Kimble et al., 2010). Moreover, the competitive nature of sport imposes a popular belief that being aggressive equals crushing opponents and winning. Institutional validation, such as sport achievement and rewards, further consolidates aggressive and violent behaviors of sport participants (Oproiu, 2013). The higher the competition level, the more likely youth are to adhere to aggressive and violent behaviors within sport (Newman et al., 2020). As a result of adopting aggressive and violent behaviors, Eklund and colleagues (2009) noticed that aggressive and violent youth sport participants are more likely to experience some social isolation due to a higher risk of peer rejection. Ultimately, for youth who adopted aggressive and violent behaviors in sport participation, there is an elevated chance that they would encounter difficult social relationships with peers and experience exclusion in some social learning environments.

Previous research has demonstrated that positive and supportive coach-athlete relationships are associated with the development of life skills (Camiré et al., 2019). Conversely, lacking coach support may obstruct the development of such positive outcomes (Kuhlin et al., 2020). In other words, without supportive coaches, college club sport participants may not be able to reflect on the learning experience under coach guidance, generalizations of practiced skills, and apply the generalizations to other life settings (Martin & Camiré, 2020). According to research by both Rowold (2006) and Vella and colleagues (2013), a coach's transformational leadership skills augment youth's positive developmental outcomes in sports contexts. Therefore,

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a lack of coach support and coach's transformational leadership behaviors also impede college club sport participants' ability to develop leadership skills in and beyond sport. Youth who are deprived of their coach's support would likely have a hard time developing life skills in sport participation.

Athletic identity is believed to be one of the conventional risk factors involved in sport participation (Brewer & Petitpas, 2017; Costa et al., 2020; van Rens et al., 2019). For instance, optimal development is believed to only occur when individuals explore a variety of social roles and experiences (Brewer & Petitpas, 2017). However, sport participation demands a significant investment in time and resources which prevents college club sport participants from experimenting in other social roles and further consolidate their athletic identity (Brown et al., 2000). Positive connections were reported between unbalanced athletic identity and hostile team climate (Poux & Fry, 2015), anger and aggressive behaviors (Maxwell & Visek, 2009), low self-efficacy and limited decision making, burnout (Gustafsson et al., 2017), substance use (Veliz et al., 2015), post-sport career adjustment (Cabrita et al., 2014), depression and hopelessness about the future (Brewer & Petitpas, 2017; Burns et al., 2012). Sport participation plays a major part in limiting college students' opportunities to explore a variety of social roles and unbalanced athletic identities could potentially negatively influence the developmental trajectory of college club sport participants.

Connecting Risk and the Resiliency Framework with Developing Life Skills

Although research has begun to identify negative experiences in sport, much is unknown about the how and/or why these potentially detrimental experiences in actuality lead to the development of life skills. One theoretical framework that may help to explain this unique relationship is resilience. Resilience is commonly defined as an innate ability to bounce back

from adversities or traumatic experiences (Block & Block, 1980; Fraser et al., 1999, L. Smith et al., 2017). According to this conceptualization, resilience is often described as a relatively stable internalized ability to bounce back or a static personal trait (Beutel et al., 2017; Schultz et al., 2009). From the developmental psychopathology and psychosocial development perspective, research pointed out that resilience can be a static personal trait for adults while resilience can also be more fluid and mercurial among young adults (Yoon et al., 2019). In alignment with the common conceptualization of resilience, as well as risk and resiliency framework (Fraser et al., 1999), Anthony and colleagues (2009) noted that certain PYD program that encompasses protective factors has the ability to increase the likelihood of youth experiencing positive developmental outcomes. In other words, developing resilience traits can elicit the development of life skills. For risk factors, the risk and resiliency framework posits that resilience traits provide conditions that buffer the effect of risk factors and cushion individuals against the detrimental implications of risk factors, which ultimately leads to the better outcomes for the individual as well (Fraser et al., 1999, 2004). Given the scarcity of research studying risk factors and life skills, this study aims to explore the potential connection between risk factors and life skills in sport participation.

Purpose of the Current Study

There is ample evidence related to positive experiences and factors that promote life skills within the context of sport. For instance, college students involved in college club sports benefit from sport involvement and positive experiences are the social cognitive determinants that facilitate developing meaningful social relationships, leadership, intellectual fitness, and increased self-esteem (Lower-Hoppe et al., 2021). However, research has also illustrated negative experiences related to sport participation (Bean et al., 2014; Dworkin & Larson, 2007).

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Negative experiences, such as mistakes and consequences, provide naturally occurring teaching moments for life skill learning (Newman et al., 2021). The theoretical construct of resilience might have the potential to link negative experiences in sport to the positive development of life skills. The current study will examine the relationships between negative sport experiences established by Kendellen & Camiré (e.g., sport anxiety, aggressive and violent behaviors, lacking coach support, athletic identity; 2015) and the life skills developed through participation in sport (e.g., time-management skills, social skills, leadership skills). Furthermore, upon identifying significant relationships between negative experiences and life skills, the moderation effect of resilience—as a mechanism of life skill development—will be examined. The current study proposed the following hypotheses:

> H1: Negative sport experiences are inversely associated with life skills developed in sport.

> H2: Resilience moderates the relationship between negative sport experiences and the life skills developed in sport.

Methods

Procedures

All research procedures were approved by a university Institutional Review Board prior to data collection. At the time of the study, participants were previously involved in university sports clubs within the previous two years. Potential participants were recruited via email, which was administered in two steps. First, a recruitment email was sent to an administrator of college club sports, who then forwarded the email to individual participants. Second, approximately two weeks after initial recruitment, a member of the research team sent a follow-up email to potential participants directly. Before engaging in the study, all participants provided informed consent.

Upon completing the survey, participants were presented the opportunity to enter a random drawing for an e-gift card.

Participants

After the removal of incomplete responses ($n = 31$), the final sample was comprised of 87 participants, of which, 64.4% were females, 32.2% were males, and 3.3% were gender minorities (i.e., transgender man, non-binary, genderqueer). The majority of participants identified as White (88.5%), followed by Asian (4.6%), Native American or Alaskan Native (3.4%), Hispanic or Latinx (2.3%), and multiracial (1.1%). The average age of participants was 20.82 ($SD = 1.46$). Among the final participants, 31% were seniors, 31% were juniors, 17.2% were sophomores, 16.1% were graduate students and 4.6% were in their fifth year. Participants represented 24 university club teams (26.4% rugby, 10.3% tennis, 8% fencing, 8% rowing), and with the majority being participating in women's (41.4%) or co-ed sports (41.4%). See Table 1.

Measures

Dependent Variables

Life Skills. The Life Skills in Sport Scale (LSSS) was used to measure college club sport participants' development of life skills through sport (Cronin & Allen, 2017). The scale consists of 43 items and is divided into eight factors. For the current study, adopting the framework of previous research (Kendellen & Camiré, 2015), three specific life skills (e.g., time-management skills, social skills, and leadership skills) were included. A five-point scale ranging from 1 (*not at all*) to 5 (*very much*) was used to assess each item, and a sum score for each life skill was created. Higher scores indicate higher levels of life skills. A previous study among youth sport participants (ages from 10–21) found the LSSS had good structural, convergent, and discriminant

validity, as well as test-retest reliability (Cronin & Allen, 2017). The scale demonstrated high internal consistency reliability in the current study ($\alpha = .97$).

Time-Management Skills. Time-management skills reflect the ability of college club sport participants to utilize their time effectively and productively. This subscale consisted of four items. Example questions include, "How much your sport has taught you to manage my time well?" and "How much your sport has taught you to assess how much time you spend on various activities?" For the current study, the subscale demonstrated high reliability ($\alpha = .94$).

Social Skills. Social skills assess the ability of college club sport participants to facilitate interactions and communications with other social agents. The subscale consists of five items. Example questions include, "How much your sport has taught you to interact in various social settings?" and "How much your sport has taught you to maintain close friendships?". For the current study, the subscale demonstrated high reliability ($\alpha = .94$).

Leadership Skills. Leadership is related to the ability of college club sport participants to manage and organize other individuals to act towards achieving a shared goal. The subscale consists of eight items. Example questions include, "How much your sport has taught you to set high standards for the team?" and "How much your sport has taught you to know how to motivate others?". For the current study, the subscale demonstrated high reliability ($\alpha = .96$).

Independent Variables

To assess the relationship between negative experiences and life skill outcomes, four specific risk factors, as outlined by Kendellen and Camiré (2015) were examined. These risk factors included sport anxiety, aggressive/violent behaviors in sport, lack of coach support, and athletic identity. All the variables were measured by using Likert scales, and a sum score was created for each variable.

Sport Anxiety. The Sport Anxiety Scale-2 (SAS-2, R. Smith et al., 2006) was used to measure anxiety related to sport performance. The scale consists of three subscales: somatic, worry, concentration disruption. Example questions include, "How much do you agree that my body feels tense?" and "How much do you agree that I worry that I won't play well?". A four-point scale ranging from 1 (*not at all*) to 4 (*very much*) was used to assess each item. Higher scores indicate higher levels of anxiety in sport. While originally tested on young athletes (9 to 14 years), the validation of the SAS-2 on college student-athletes found the scale had demonstrated acceptable reliability. The total alpha for the college group was .91 (CI = 0.90–0.92; R. Smith et al., 2006). The internal consistency reliability for the current study was respectable (α = .91).

Aggressive/Violent Behavior in Sport. To measure adherence to aggressive and violent behaviors among student-athletes, the eight-item Code of the Street scale (CotS; Olate et al., 2017) was adapted for the current study. Items were modified to measure adherence to aggressive/violent behaviors within sport among student-athletes. Example questions include, "How much do you agree that when someone disrespects you, it is important that you use physical force or aggression to teach him or her not to disrespect you?" and "How much do you agree that if someone uses violence against you, it is important that you use violence against him or her to get even?". Questions were answered using a five-point scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Higher scores indicate higher acceptance and association with aggression and violence in sport. Previous research among college students found the CotS scale to be a reliable tool (α = .89; Olate et al., 2017). Within the current study, the scale demonstrated sound reliability (α = .89).

Lacking Coach Support. A modified six-item Social Support Questionnaire (SSQ-6) was used to measure coach support for student-athletes in sport (Sarason et al., 1987). The modified SSQ-6 consists of items such as "I can really count on my coach to be dependable when I need help". Two studies had found the SSQ-6 had high test-retest reliability and highly correlated with personality variables similar to the full Social Support Questionnaire regarding college students (Sarason et al., 1987). Even though the SSQ-6 was validated for measuring social support among college students, the scale's ability to assess the specific type of social support (e.g., coach support) has yet to be fully established. Therefore, a modified version of SSQ-6 has been adopted to better reflect distinct participant characteristics and the competitive sport contexts. For instance, open-ended questionnaire items (e.g., "whom can you count on to console you when you are very upset?") have been modified into coach-related statements (e.g., "How much do you agree that I can count on my coach to console me when I am very upset?"). Additionally, the first item of the SSQ-6 has been modified to be more general and context-appropriate (e.g., "How much do you agree that I can really count on my coach to be dependable when I need help?"). Finally, a five-point rating system was utilized to record participants' responses (1 = *strongly disagree*, 5 = *strongly agree*), with higher scores indicate higher stronger coach support. The internal consistency reliability for the current study demonstrated a high Cronbach's alpha score ($\alpha = .95$).

Athletic Identity. The Academic and Athletic Identity Sale (AAIS) was used to measure the centrality of student-athlete athletic engagement to one's sense of self (Yukhymenko-Lescroart, 2014). The original 10-item scale (e.g., being a capable student) is divided into two factors: school identity and athletic identity. However, in the current study, only athletic identity was included. Example questions include, "How central to your sense of self is being a capable

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athlete?" and "How central to your sense of self is being a good athlete?". A seven-point scale ranging from 1 (*not central*) to 7 (*the central core*) was adopted to assess each item. A higher score indicates a higher sense of centrality. Initial study and confirmatory study with college student-athletes were conducted and found the AAIS bears good internal reliability and validity (Yukhymenko-Lescroart, 2014). Within the population of the current study, the scale demonstrated high reliability (α = .97).

Moderator

Resilience. The Brief Resilience Scale (BRS) was used to measure the ability to bounce back or recover from stress among student-athlete (B. Smith et al., 2008). The scale consists of six items (e.g., "How much do you agree that I tend to bounce back quickly after hard times?") and every second item was reverse coded (e.g., "How much do you agree that I have a hard time making it through stressful events?"). A five-point score was used to measure the items (1 = *strongly disagree*, 5 = *strongly agree*). Points were exchanged for reverse coded items (5 = *strongly disagree*, 1 = *strongly agree*). Validation analysis of the BRS with four samples (e.g., college students, cardiac rehabilitation patients) found the scale was reliable and had a unitary construct predictably related to personal characteristics (B. Smith et al., 2008). Specifically, the scale was proved to be negatively related to anxiety, depression, and negative affect (B. Smith et al., 2008). For the current study, Cronbach's alpha indication acceptable reliability (α = .86).

Data Analysis

All analyses were conducted using IBM SPSS Statistics Version 27. Prior to the main analyses, issues of missing data and outliers were addressed. Data skewness and kurtosis were tested, and normal distribution was established. For main analyses of linear regression, a series of linear regression models were utilized to examine the correlation between negative

experiences in sport and life skills, as well as the moderating effect of resilience. The analytical procedure is presented by goals and repeated by different types of life skills.

Preliminary Analyses

First, the percentage of missing data and patterns of missing were analyzed. After the removal of incomplete responses ($n = 31$), 0.21% of missing data across eight cases were observed. Results from Little's Missing Completely at Random test were non-significant for each scale, indicating data were missing at random. Multiple imputation technique was employed to treat the missing data, resulting in 100% complete dataset.

Following missing data imputation, descriptive statistical analyses were performed for the full sample, as well as for each measurement scale. Data were screened for potential outliers using proper outlier labeling rules (i.e., 1.5 quartiles). One potential outlying value for each of the three variables was identified (i.e., anxiety, lacking coach support, leadership skills). Furthermore, one outlier (1.15%) of the anxiety scale, and the only outlier of the sample, was confirmed using proper outlier labeling rules (Hoaglin et al., 1986). Given that the differences between the upper bound of the accepted range and the actual score of the outlying case were only 2.8 for a scale ranged from 15 to 60, the outlying value was kept for the analyses.

Skewness and kurtosis values for the total score of the time-management skills, social skills, leadership skills, SAS-2, CotS, SSQ-6, athletic identity, and BRS fell within the accepted ranges of ±1 and ±2 respectively, suggesting that the sample data met the normality assumption. Specifically, the sample of college club sport participants responded with an average score of 15.03 ($SD = 3.73$) for time-management skills (min = 4, max = 20), suggesting that participants presented on average a high level of life skills. Similar results were observed for social skills ($\bar{x} = 19.11$, $SD = 5.06$, min = 6, max = 25) and leadership skills ($\bar{x} = 32.01$, $SD = 7.22$, min = 8, max =

40). Further, college club sport participants reported a relatively low level of anxiety ($\bar{x}$ = 28.44, *SD* = 7.95) with 95% of the participants fell between 18.40 and 43.60 on a scale ranging from 15 to 60. On the other hand, college club sport participants reported moderate exposure to aggression in sport ($\bar{x}$ = 17.02, *SD* = 6.48). For coach support, college club sport participants recounted a low level of lacking support from the coach ($\bar{x}$ = 13.14, *SD* = 5.29) on a scale of 6 to 30. The majority of the college club sport participants had a strong association with their athletic identity ($\bar{x}$ = 21.52, *SD* = 7.90) with a maximum score of 35. Participants in the sample reported a moderate level of resilience ($\bar{x}$ = 20.03, *SD* = 4.73). See Table 2.

Main Analyses

Goal 1: The Relationship Between Negative Experiences in Sport and Life Skill Outcomes. Descriptive statistics were used to summarize the demographics and student-athlete involvement in sport. Using the sum of the items for each scale, linear regression analyses were performed to examine the relationship between each independent variable (i.e., sport anxiety, aggressive and violent behaviors in sport, lack of coach support, and athletic identity) and each dependent variable (i.e., time-management skills, social skills, and leadership skills) while controlling pertinent variables (e.g., age, race, gender, years of participation in primary sport). Values for coach support were reverse coded to represent the lack of support. Prior to performing the analyses, underlying assumptions for linear regression were confirmed.

Goal 2: Examining the Moderating Effect of Resilience. Upon identifying a significant direct effect of certain independent variables (i.e., lack of coach support, athletic identity) and dependent variables (time-management skills, social skill, leadership skills), moderation analyses were selected to assessing the relationship between these independent variables and life skills. The variable of resilience was tested as the moderator while controlling pertinent variables (e.g.,

age, race, gender, years of participation in your primary sport). The analyses were performed using Hayes' (2017) PROCESS Procedure. If a significant moderation effect was observed, resilience would be considered moderating the relationship between independent variables and dependent variables.

Results

Goal 1: The Relationship between Negative Experiences and Life Skill Outcomes

Each analysis sought to examine the relationship between each of the four independent variables (i.e., sport anxiety, aggressive and violent behaviors in sport, lack of coach support, and athletic identity) and one of the three dependent variables (i.e., time-management skills, social skills, and leadership skills). See Table 3.

Analysis 1. Direct Effect of Negative Experiences on Time-Management Skills

The direct effect of anxiety on college club sport participants' time-management skills was found to be positive and non-significant, B = 0.006, 95% CIs [-0.095; 0.107], p = .909. As a result, the current study did not proceed to assess the moderating effect of resilience on the relationship between anxiety and time-management skills.

The direct effect of aggression in sport on college club sport participants' time-management skills was found to be negative and significant, B = -0.183, 95% CIs [-0.301; -0.065], p < .01. Specifically, participants who reported adhering to aggression and violence in sport were increasingly likely to have reported a lower level of time-management skills. The impact of aggression was found to explain 10.1% of the variance of participants' time-management skills.

The direct effect of lacking coach support on college club sport participants' time-management skills was found to be negative and significant, B = -0.179, 95% CIs [-0.327; -

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0.032], p < .05. Specifically, participants who reported having lower levels of coach support were increasingly likely to have reported a lower level of time-management skills. The impact of lacking coach support was found to explain 6.4% of the variance of participants' time-management skills.

The direct effect of athletic identity on college club sport participants' time-management skills was found to be positive and significant, B = 0.178, 95% CIs [0.084–0.273], p < .001. Specifically, participants who reported being higher levels of athletic identity were increasingly likely to have reported a higher level of time-management skills. The impact of athletic identity was found to explain 14.3% of the variance of participants' time-management skills.

Analysis 2. Direct Effect of Negative Experiences on Social Skills

The direct effect of anxiety on college club sport participants' social skills was found to be positive and non-significant, B = 0.098, 95% CIs [-0.119; 0.155], p = .793. As a result, the current study did not proceed to assess the moderating effect of resilience on the relationship between anxiety and time social skills.

The direct effect of aggression in sport on college club sport participants' social skills was found to be negative and nearing significance, B = -0.157, 95% CIs [-0.322; 0.008], p = .062. Specifically, participants who reported adhering to aggression and violence in sport were increasingly likely to have reported a lower level of social skills. The impact of aggression was found to explain 4.0% of the variance of participants' social skills. However, as a result of near significance, the current study did not proceed to assess the moderating effect of resilience on the relationship between aggression in sport and social skills.

The direct effect of lacking coach support on college club sport participants' social skills was found to be negative and significant, B = -0.299, 95% CIs [-0.495; -0.103], p < .01.

Specifically, participants who reported lower levels of coach support were increasingly likely to have reported a lower level of social skills. The impact of lacking coach support was found to explain 9.8% of the variance of participants' social skills.

The direct effect of athletic identity on college club sport participants' social skills was found to be positive and significant, B = 0.319, 95% CIs [0.199–0.438], p < .001. Specifically, participants who reported higher levels of athletic identity were increasingly likely to have reported a higher level of social skills. The impact of athletic identity was found to explain 24.8% of the variance of participants' social skills.

Analysis 3. Direct Effect of Negative Experiences on Leadership Skills

The direct effect of anxiety on college club sport participants' leadership skills was found to be negative and non-significant, B = -0.089, 95% CIs [-0.285; 0.106], p = .364. As a result, the current study did not proceed to assess the moderating effect of resilience on the relationship between anxiety and leadership skills.

The direct effect of aggression on college club sport participants' leadership skills was found to be negative and non-significant, B = -0.138, 95% CIs [-0.376; 0.101], p = .254. As a result, the current study did not proceed to assess the moderating effect of resilience on the relationship between aggression in sport and leadership skills.

The direct effect of lacking coach support on college club sport participants' leadership skills was found to be negative and significant, B = -0.518, 95% CIs [-0.791; -0. 246], p < .001. Specifically, participants who reported lower levels of coach support were increasingly likely to have reported a lower level of leadership skills. The impact of lacking coach support was found to explain 14.4% of the variance of participants' leadership skills.

The direct effect of athletic identity on college club sport participants' leadership skills was found to be positive and significant, B = 0.433, 95% CIs [0.260–0.607], p < .001. Specifically, participants who reported higher levels of athletic identity were increasingly likely to have reported a higher level of leadership skills. The impact of athletic identity was found to explain 22.5% of the variance of participants' leadership skills.

Goal 2: Examining the Moderating Effect of Resilience

Each analysis constructs three moderation models following the theoretical framework of Hayes' (2017). Analysis of every moderation model was performed independently but the results were reported collectively. See Figure 1.

Analysis 1. Moderating Effect of Resilience on the Relationship Between Lacking Coach Support and Life Skills

Following the identification of significant direct effects between lacking coach support and life skills, the current study proceeded to test if college club sport participants' resilience strengthens or weakens the existing significant direct effect between lacking coach support and life skills. After adding the moderation effect while controlling for college club sport participants' age, race, gender, and years in sport, moderation models predicting time-management skills and social skills were not significant, $F_{(7, 79)} = .945$, $p = .477$; $F_{(7, 79)} = 2.12$, $p = .051$. The moderation model predicting leadership skills were significant, $F_{(7, 79)} = 2.73$, $p < .05$. However, the moderation effect of resilience on lacking coach support and all three types of life skills were positive and non-significant (B = .008, 95% CIs [-.026; .042], p = .650; B = .039, 95% CIs [-.005; .083], p = .082; B = .026, 95% CIs [-.036; .087], p = .412). The non-significant effects of resilience on the relationships between lacking coach support and life skills suggest that resilience did not have a moderating effect on the existing relationships.

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Analysis 2. Moderating Effect of Resilience on the Relationship Between Athletic Identity and Life Skills

Following the identification of significant direct effects between athletic identity and life skills, the current study proceeded to test if college club sport participants' resilience, strengthen or weaken the existing significant direct effect between athletic identity and life skills. After adding the interaction effect while controlling for college club sport participants' age, race, gender, and years in sport, all three moderation models were significant, $F (7, 79) = 2.43$, $p < .05$; $F (7, 79) = 4.44$, $p < .001$; $F (7, 79) = 4.05$, $p < .001$. However, the moderation effect of resilience on athletic identity and all three types of life skills were negative and non-significant ($B = -.012$, 95% CIs [-.031; .008], $p = .230$; $B = -.018$, 95% CIs [-.043; .005], $p = .126$; $B = -.015$, 95% CIs [-.050; .020], $p = .388$). Similarly, the non-significant effects of resilience on the relationships between athletic identity and life skills suggest that resilience did not have moderating effect on the existing relationships.

Discussion

Research has readily demonstrated that sport participation is capable of promoting the healthy development of youth, specifically related to the development of life skills. However, the experiences associated with sport participation are not invariably positive. For example, Kendellen & Camiré (2015) established four major groups of sport negative experiences, including sport anxiety, aggressive and violent behaviors, lacking coach support, and athletic identity. Although research has indicated that such negative experiences may actually be related to the development of life skills (Newman et al., 2021), the mechanism linking negative experiences and positive outcomes is unknown. To address the gap in research, the current study utilized a risk and resiliency framework (i.e., Anthony et al., 2009) to examine the relationship

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between negative experiences and the development of life skills among university students participating in college club sport.

Results from a series of regression analyses revealed significant positive correlations between athletic identity and each of the life skills examined, as well as significant negative correlations between lacking coach support and the life skills examined. The current study found no significant relationship between sport anxiety and life skills nor aggressive and violent behaviors life skills. Further, when examining the moderation effect of resilience negative experiences in sport did not support the development of life skills.

Finding significant negative effects between lacking coach support on all three types of life skills was expected in the current study. Previous research had readily provided evidence depicting the coach as one of the most influential factors across all levels of sport involvement that help facilitate developing life skills (Gould et al., 2007; Martin & Camiré, 2020). Research acknowledges that having sufficient coach support means having experienced and adequately trained coach facilitating the development of life skills through deliberate design and implementing sport programs, as well as modeling favorable social behaviors (Holt et al., 2017; Martin & Camiré, 2020; Newman & Lower, 2019). On the other hand, lacking social support from coach, hinders the ability of youth to effectively develop life skills (Wachsmuth et al., 2017). As Kendellen & Camiré (2015) highlighted, inappropriate social interactions with coach damage what could have been positive social relationships with coach and furthermore poisons the sport environment which is wildly regarded as an important medium for developing life skills. Therefore, college club sport participants who reported receiving less coach support would be more likely to experience difficulties developing life skills in sport.

Athletic identity is regarded as negatively affecting positive development (Cabrita et al., 2014; Maxwell & Visek, 2009; Yukhymenko-Lescroart, 2014). Athletic identity, as a result of identity foreclosure (Brewer & Petitpas, 2017), attributes to the rise of individual hostility, aggressive and violent behaviors, depression, and other mental issues (Burns et al., 2012; Maxwell & Visek, 2009; Poux & Fry, 2015). Inconsistent with previous understanding of athletic identity, the current study found positive correlations between athletic identity and life skills. The conflicting result of finding positive outcomes associated with athletic identity may possibly be explained by having developed balanced athletic identities. PYD approach with a focus on developing life skills enriches college club sport participants' life experiences and provides them with opportunities to explore other social roles. College students who have adequate social experiences in other domains are more likely to develop a balanced athletic identity, in accompany of other social identities. Adequate social experiences also mitigate the risk of identity foreclosure for college students in sport. Consequently, an increased but balanced athletic identity reinforces college students' commitment to participating in sport and learning life skills in the sport environment. In such a PYD approach with a focus on developing life skills, athletic identity is able to facilitate positive developmental outcomes.

The results from the moderation analyses indicate that the resilience of the participating college club sport participants does not moderate the relationship between negative experiences and life skills. Moreover, resilience is neither significantly correlated with each negative experience nor with each type of life skill. Previous research provides some insight into the lack of significant moderating effects. Among a collection of diverse conceptualization of resilience, the common definition of resilience states that resilience is an innate ability to bounce back from adversities or traumatic experiences (Block & Block, 1980; L. Smith et al., 2017). Conversely,

resilience also has been conceptualized as an outcome of successful adaptation in response to the damage of trauma (Dubowitz et al., 2016; Luthar et al., 2000; Yoon, 2018). Other researchers have defined resilience as the process of locating and utilizing internal and external resources (Sanders et al., 2015; Ungar et al., 2013). Lacking a unified conceptualization of resilience is the cause of lacking generalized methodology and framework to analyze resilience. In the effort to unify resilience conceptualizations, from the developmental psychopathology and psychosocial development perspective, research pointed out that resilience can be a static personal trait for adults while resilience can also be more fluid and mercurial among young adults (Yoon et al., 2019). Giving the fact that a linear regression model is more effective to represent linear variables, such as a static resilient trait of adults, it may not be the best tool to analyze resilience. The absence of significant linear relationships (i.e., moderating effects) of resilience in the current study appears to further confirm the mercurous nature of resilience for the college student population in the transitional developmental stage.

College club sport participants ' performance anxiety was not a significant predictor of the life skills examined, nor was aggressive and violent behaviors. According to a limited number of existing studies of anxiety and aggression as predictors of developing life skills, a few factors might be related to the lack of significant relationship. First, it is best for life skills to be actively and purposefully taught (Gould et al., 2007; Papacharisis et al., 2005), learned and mastered (Newman, 2020). Narrowed attention caused by anxiety subverts the development of life skills because attention and concentration are often directed towards threatening crisis and away from the primary objectives (e.g., developing life skills; Vast et al., 2010). Additionally, college club sport participants with a higher level of anxiety are more frequently worried about failures and performance evaluations from coaches, peers, and parents. Thus, a stronger sense of

resentment and aversion in the participation of life skill practice and development would often be present. Similarly, college club sport participants who adopted aggressive and violent behaviors are likely at a higher risk of peer rejection (Newman et al., 2020). As a result, involuntary social aversion could affect the college club sport participants ' participation in developing life skills. Consistent with the *social learning theory* (Bandura, 1971), life skills can be best learned in a positive social environment (Newman, 2020). Consequently, voluntary social aversion caused by anxiety and involuntary social aversion caused by aggression and violent behaviors might be additional factors that explain the lack of significant relationship in the current study.

Limitations and Future Research

The current study had several limitations, which may inform future studies. First, the current study's use of cross-sectional data limited the external validity of the findings. Future studies should consider the use of longitudinal data considering life skills are developed through a culmination of experiences (Pierce et al., 2017), as well as the time-sensitive order of resilience (Fraser et al., 1999). For example, a simple pretest/posttest design that bookends a sport season may provide the ability to collect longitudinal data.

Similarly, another limitation of the study was the lack of empirical consistency and coherence in conceptualizing resilience in the field. Lacking consensus regarding the definition of resilience – and in order to conduct linear modeling – resilience was conceptualized as a static personal trait. However, given the fluid nature of resilience, the effect of resilience may operate beyond a simple linear pathway. Future research should consider utilizing latent variables, which may be more appropriate for complex and dynamic analytical modeling (e.g., structural equational modeling).

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Finally, the current study failed to allocate enough attention to issues of diversity, such as race/ethnicity, socioeconomic status, gender identity, and sexual orientation. Diversity and inclusion are critically important considering that different intersectional identities may be associated with unique negative experiences and unparalleled demonstrations of resilience. Future research should explore how resilience is associated with aspects of individual differences and how factors of resilience vary across groups.

Implications for Social Work

Aligning with the Grand Challenges of Social Work, the current study provides further support that sport can be a context used to promote the healthy development of youth. Previously, Newman (2020) highlighted the utility for social workers to use sport setting to promote healthy youth development. Findings from the current study point to the need for coaches to use supportive practices and for programs to structure experiences that enhance healthy conceptions of identity. To this end, coach education should integrate PYD tenets, such as a focus on teaching life skills through sport (Santos et al., 2019) and using supportive coaching practices (Riley et al., 2017). Further, although athletic identity has been traditionally considered a risk factor, findings from this study suggest that an identity related to sport may actually contribute to the development of life skills. When working with athletes, social workers and coaches alike, should operate from a holistic lens and understand the intersectional identities of athletes when providing services. In the end, findings from the current study can be used to enhance the intentional design of sport programs and practices of sport coaches, as well as social workers and other behavioral health specialists providing services to these dynamic individuals.

Conclusion

The positive development of youth associated with sport participation in college continues to be an important research topic and deserves adequate attention from researchers and social workers, and other behavioral health practitioners. To understand the negative experiences in sport and their relationships with positive developmental outcomes, the current study examined the relationships between negative experiences and the life skill developed in sport, as well as the moderating effect of resilience. Athletic identity and lacking coach support were found to significantly predict the development of life skills. Although resilience is not a significant predictor in the current study, results suggest resilience as a trait may be more fluid. In the end, findings highlight the importance of supportive coaching practices and operating from a holistic lens when working with sport participants.

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TABLES AND FIGURES

Table 1

Demographics for Student-athlete Participants

	N = 87	
Variable	n	%
Gender		
Female	56	64.37
Male	28	32.18
Other	3	3.45
Age		
19 – 21	68	78.16
22 – 24	16	18.39
25 – 26	3	3.45
Race/ethnicity	(N=168)	
white	77	88.51
Asian	4	4.60
Native American or Alaskan Native	3	3.45
Hispanic or Latinx	2	2.30
multiracial	1	1.15
Years in University		
Sophomore	15	17.24
Junior	27	31.03
Senior	27	31.03
Fifth+ year	4	4.60
Grads	14	16.09
Uni Clubs		
Rugby	23	26.44
Tennis	9	10.34
Fencing	7	8.05
Rowing	7	8.05
Other	41	47.13
Sport Gender		
Co-Ed	36	41.38
Women's	36	41.38
Men's	15	17.24

Notes: Gender Other = transgender man, non-binary, genderqueer; Total number of Uni Clubs = 24

Table 2

Descriptive Statistics for Psychometric Scale

	M	Med	SD	Min	Max	Skewness	SE	Kurtosis	SE
Full sample (n=87)									
Sport anxiety	28.44	27.00	7.95	15.00	60.00	1.00	0.26	1.83	0.51
Aggressive and violent behaviors	17.02	17.00	6.48	8.00	40.00	0.50	0.26	0.54	0.51
Lack of coach support	13.14	12.00	5.29	6.00	30.00	0.63	0.26	0.46	0.51
Athletic identity	21.52	22.00	7.90	5.00	35.00	-0.44	0.26	-0.52	0.51
Time management skills	15.03	16.00	3.73	4.00	20.00	-0.60	0.26	0.13	0.51
Social skills	19.11	20.00	5.06	6.00	25.00	-0.64	0.26	-0.21	0.51
Leadership skills	32.01	32.00	7.22	8.00	40.00	-0.93	0.26	0.59	0.51
Resilience	20.03	21.00	4.73	9.00	30.00	-0.17	0.26	-0.36	0.51

Table 3

Statistical Analyses for Psychometric Scale

	B	SD β	*p*	CI LB	CI UB	R	R^2	Adj R^2
Full sample (n=87)								
Time management skills (DV)								
Sport anxiety	0.01	0.01	0.909	-0.10	0.11	0.01	0.00	-0.01
Aggressive and violent behaviors**	-0.18	-0.32	0.003	-0.30	-0.07	0.32	0.10	0.09
Lack of coach support*	-0.18	-0.25	0.018	-0.33	-0.03	0.25	0.06	0.05
Athletic identity***	0.18	0.38	0.000	0.08	0.27	0.38	0.14	0.13
Social skills (DV)								
Sport anxiety	0.02	0.03	0.793	-0.12	0.16	0.03	0.00	-0.01
Aggressive and violent behaviors	-0.16	-0.20	0.062	-0.32	0.01	0.20	0.04	0.03
Lack of coach support**	-0.30	-0.31	0.003	-0.50	-0.10	0.31	0.10	0.09
Athletic identity***	0.32	0.50	0.000	0.20	0.44	0.50	0.25	0.24
Leadership skills (DV)								
Sport anxiety	-0.09	-0.10	0.364	-0.29	0.11	0.10	0.01	0.00
Aggressive and violent behaviors	-0.14	-0.12	0.254	-0.38	0.10	0.12	0.02	0.00
Lack of coach support***	-0.52	-0.38	0.000	-0.79	-0.25	0.43	0.09	0.47
Athletic identity***	0.43	0.47	0.000	0.26	0.61	0.47	0.23	0.22

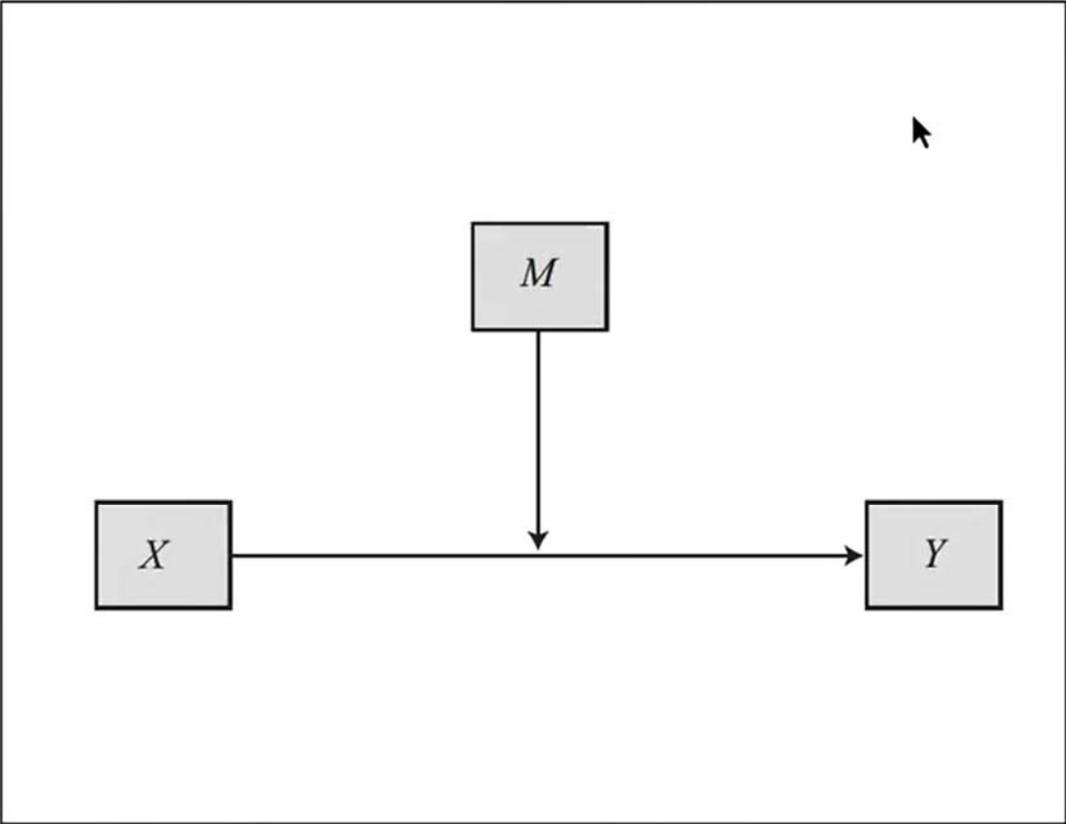*Note:* LB = lower bound, UB = upper bound.

*$p \leq 0.05$ **$p \leq 0.01$ ***$p \leq 0.001$.

Figure 1

Conceptual Diagram of Moderation Model

Model 1

Conceptual Diagram

APPENDICES

Appendix I

IRB Approval Page

University *of* New Hampshire

Research Integrity Services, Service Building
51 College Road, Durham, NH 03824-3585
Fax: 603-862-3564

28-Sep-2020

Newman, Tarkington J
Social Work
Pettee Hall
Durham, NH 03824-2621

IRB #: 8375
Study: College Student-Athlete Mental Health & Wellbeing
Approval Date: 28-Sep-2020

The Institutional Review Board for the Protection of Human Subjects in Research (IRB) has reviewed and approved the protocol for your study as Exempt as described in Title 45, Code of Federal Regulations (CFR), Part 46, Subsection 104(d). Approval is granted to conduct your study as described in your protocol.

Researchers who conduct studies involving human subjects have responsibilities as outlined in the attached document, *Responsibilities of Directors of Research Studies Involving Human Subjects.* (This document is also available at http://unh.edu/research/irb-application-resources.) Please read this document carefully before commencing your work involving human subjects.

Note: IRB approval is separate from UNH Purchasing approval of any proposed methods of paying study participants. Before making any payments to study participants, researchers should consult with their BSC or UNH Purchasing to ensure they are complying with institutional requirements. If such institutional requirements are not consistent with the confidentiality or anonymity assurances in the IRB-approved protocol and consent documents, the researcher may need to request a modification from the IRB.

Upon completion of your study, please complete the enclosed Exempt Study Final Report form and return it to this office along with a report of your findings.

If you have questions or concerns about your study or this approval, please feel free to contact Melissa McGee at 603-862-2005 or melissa.mcgee@unh.edu. Please refer to the IRB # above in all correspondence related to this study. The IRB wishes you success with your research.

For the IRB,

Julie F. Simpson
Director

cc: File

Appendix II

<u>**Sport Anxiety Scale-2**</u> **(Smith et al., 2006)**
Please indicate how much you agree with each of the following statements.
   1 (not at all), 2 (a little bit), 3 (pretty much), and 4 (very much)

Somatic
  1. My body feels tense.
  2. I feel tense in my stomach.
  3. My muscles feel shaky.
  4. My stomach feels upset.
  5. My muscles feel tight because I am nervous.
Worry
  1. I worry that I won't play well.
  2. I worry that I will let others down.
  3. I worry that I will not play my best.
  4. I worry that I will play badly.
  5. I worry that I will mess up during the game.
  6. It is hard to concentrate on the game.
  7. It is hard for me to focus on what I am supposed to do.
Concentration Disruption
  1. I lose focus on the game.
  2. I cannot think clearly during the game.
  3. I have a hard time focusing on what my coach tells me to do.

Appendix III

Aggressive and Violent Behaviors [Code of the Street Scale] (Olate et al., 2017)
Please indicate how much you agree with each of the following statements.

Within sport…	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
1. When someone disrespects you, it is important that you use physical force or aggression to teach him or her not to disrespect you.	○	○	○	○	○
2. If someone uses violence against you, it is important that you use violence against him or her to get even.	○	○	○	○	○
3. People will take advantage of you if you don't let them know how tough you are.	○	○	○	○	○
4. People do not respect a person who is afraid to fight physically for his/her rights.	○	○	○	○	○
5. Sometimes you need to threaten people in order to get them to treat you fairly.	○	○	○	○	○
6. It is important to show others that you cannot be intimidated.	○	○	○	○	○
7. People tend to respect a person who is tough and aggressive.	○	○	○	○	○
8. Sometimes you have to use physical force or violence to defend your rights.	○	○	○	○	○

Appendix IV

Coach / Teammate Support (adapted from Sarason et al., 1987)
Please indicate how much you agree with each of the following statements.
1 (strongly disagree), 2 (disagree), 3 (neither agree nor disagree), 4 (agree), and 5
(strongly agree)

Coach Support
1. I can really count of my coach to be dependable when I need help.
2. I can really count on my coach to help me feel more relaxed when I am under pressure or tense.
3. My coach accepts me totally, including both my worst and best points.
4. I can really count on my coach to care about me, regardless of what is happening to me.
5. I can really count on my coach to help me feel better when I am generally feeling down-in-the-dumps.
6. I can count on my coach to console me when I am very upset.

Appendix V

<u>Academic and Athletic Identity Questionnaire (Yukhymenko-Lescroart, 2014)</u>
How central to your sense of who you really are is each of these characteristics?
    Not central = 1; Slightly central = 2; Somewhat central = 3; Central = 4; Very central =
    5; Extremely central = 6; The central core = 7

Sport Identity
1. Being a capable athlete.
2. Being a good athlete.
3. Being athletic.
4. Being proud to be an athlete.
5. Being satisfied with my athletic achievements.

Appendix VI

Life Skills in Sport Scale (Cronin & Allen, 2017)
Please rate how much your sport has taught you to perform the skills listed below.
1 (not at all), 2 (a little), 3 (some), 4 (a lot), and 5 (very much)

Time Management
1. Manage my time well.
2. Assess how much time I spend on various activities.
3. Control how I use my time.
4. Set goals so that I use my time effectively.

Social Skills
1. Interact in various social settings.
2. Maintain close friendships.
3. Start a conversation.
4. Get involved in group activities.
5. Help others without them asking for help.

Leadership
1. Set high standards for the team.
2. Know how to motivate others.
3. Help others solve their performance problems.
4. Be a good role model for others.
5. Organize team/group members to work together.
6. Recognize other peoples' achievements.
7. Know how to positively influence a group of individuals.
8. Consider the individual opinions of each team/group member.

Appendix VII

The Brief Resilience Scale **(Smith et al., 2008)**
Please indicate how much you agree with each of the following statements.
    Strongly disagree = 1; Disagree = 2; Neither agree nor disagree = 3; Agree = 4; Strongly agree = 5

1. I tend to bounce back quickly after hard times.
2. I have a hard time making it through stressful events. (R)
3. It does not take me long to recover from a stressful event.
4. It is hard for me to snap back when something bad happens. (R)
5. I usually come through difficult times with little trouble.
6. I tend to take a long time to get over setbacks in my life. (R)

Appendix VIII

College Sport Experience

     Primary Sport: _____

     Primary Sport Gender: ___ men's   ___ women's   ___ co-ed

     Years of NCAA / Club Team Participation: ___

Demographic Information

     How would you describe your race and/or ethnicity (select all that apply)?
___ American Indian or Alaska Native. *A person having origins in any of the original peoples of North and South America (including Central America), and who maintains tribal affiliation or community attachment.*
___ Asian. *A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.*
___ Black or African American. *A person having origins in any of the black racial groups of Africa. Terms such as "Haitian" or "Negro" can be used in addition to "Black or African American."*
___ Hispanic or Latino. *A person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race. The term, "Spanish origin," can be used in addition to "Hispanic or Latino."*
___ Native Hawaiian or Other Pacific Islander. *A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.*
___ White. *A person having origins in any of the original peoples of Europe, the Middle East, or North Africa.*
___ other (describe) _____
___ prefer not to answer.

Gender/Sex: ___ man/male   ___ women/female   ___ transgender man
___ transgender woman   ___ intersex   ___ non-binary   ___ genderqueer
___other (describe) _____   ___ prefer not to answer.

Age: ___ years   ___ prefer not to answer

Sexual orientation: ___ Straight   ___ Lesbian   ___ Gay   ___ Bisexual
___ Queer   ___ Pansexual   ___ Asexual
___ other (describe) _____   ___ prefer not to answer.

Current year in college: ___ first year   ___ second year   ___ third year
___ fourth year   ___ fifth+ year   ___ graduate student   ___ prefer not to answer.