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Perceptions of Stress Experienced by Student-Athletes in an Education Opportunity Program

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Abstract

Stress has been shown to have a negative impact on psychological and physical health. Individuals who experience chronic stress are at increased risk for serious health conditions such as rheumatoid arthritis, coronary disease and some cancers as well as mental health disorders such as anxiety, depression, disordered eating and substance use. The resulting conditions impact any area of an individual's life such as academic or career endeavors. In the case of college students, experiences of stress impact student achievement and persistence. Research on student-athletes, underrepresented, first generation, and low-income students has shown these populations to be at increased risk for stress and the negative effects of stress experiences. This study aims to increase understanding of the experiences of student-athletes in an Education Opportunity Program (EOP). Participants indicated that they felt stressed sometimes to fairly often but felt in control of their lives. They identified academics, social, and personal wellness issues as concerns which caused them to experience stress. The new insights gained by this study will expand research in this area and could improve efforts by The College at Brockport EOP counselors to serve their student-athletes.

Perceptions of Stress Experienced by Student-Athletes in an Education Opportunity Program

Quality student experiences improve student retention and graduation rates. College efforts prepare students for the global workforce, leading to increased innovations that solve the problems our country faces, and ultimately keep our place as a leader in the world (Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2008). College counselors are often the first to identify, develop, and deliver resources to ensure positive student outcomes (Davis & Humphrey, 2000). Yet, in order to be effective, college counselors must have an understanding of their students' experiences; especially those, who work with students in education opportunity programs, as the students in these programs face unique issues related to their cultural experiences and academic preparation.

The literature revealed that experiences vary based on demographic data. Students of low socioeconomic status, first generation, and minority students experience challenges that are not as prevalent in other populations (Amzitia, Syed, & Radmacher, 2013). Furthermore, student-athletes often face additional challenges as they balance their academic responsibilities with athletic participation (Broughton & Neyer, 2001). They experience more stress due to factors such as, college transition, financial burden, diminished support systems, adjustment, mental health and academic ability (Ting, 2009). Experiencing stress has been shown to have negative effects on an individual's wellbeing. Thus, it is important for college counselors to be aware of their students' perceptions of stress experiences so that they may address areas of need.

The challenges faced by minority first generation students were studied. The experiences of student-athletes and how their dual roles affect their experience of stress were also studied. There is, however, a dearth of research on first generation minority student-athletes, many of who are members of Education Opportunity Programs (EOP). Counselors serving students in

EOP are charged with providing the necessary supports to ensure their students achieve their academic and career goals (Clauss-Ehlers & Wibrowski, 2007). An understanding of the perceptions of these students is needed in order to develop and provide effective interventions. This study seeks to answer the research question: what is the perception of stress experienced by students in an Education Opportunity Program? The following review of the literature examines the nature of stress, complications that arise due to experiences of stress, and the factors associated with stress experiences of first generation, low income, minority students and student-athletes.

Definition of Technical Terms

Stress is a natural part of life and is not likely to be avoided; the term is used as a descriptor in so many ways such that it can be difficult to differentiate what one means by the term "stress". Factors that influence stress are sometimes referred to as stress or stressors. Similarly, an individual's response to a stressful event is sometimes referred to as stress (Slavich, 2016). An individual's experience of stress is as varied as the ways in which we use the term. Stress is a highly subjective experience, including which events might be considered a stressor, the level of stress experienced by the stressor, and the psychological, physiological or behavioral response to the stressor (Martin, Carlson, & Buskist, 2007). Some individuals view stress as a negative experience, whereas, others may find it a positive experience or seem to thrive during stressful events (Ben-Ari, Tsur, & Har-Even, 2006). For the purpose of this study, stress experiences are any events or tasks that cause a physical or emotional response such that the individual feels a limited ability to successfully manage such event or task.

Literature Review

Hans Selye is well known for his research on stress. He defined stress as the body's reaction to an outside demand (Selye, 1983). Lazarus and Folkman (1984) proposed that stress is the relationship between an individual and their environment. Their research suggested that an individual experiences stress when they assess their environment as one that will tax their available resources (Donovan, Doody, & Lyons, 2013). Martin, et al. (2007) described stress as "a pattern of psychological, behavioral, emotional and cognitive responses to real or imagined stimuli that are perceived as preventing a goal, endangering or otherwise threatening wellbeing". Research on stress, consistently found that an individual's perception of a stressor was subjective (i.e. what is considered stressful for one individual, might not be considered stressful for another individual; Cohen et al., 1983, Lloyd et al., 1980, Roberti, et al., 2006, Shields et al., 2017). Similarly, what one individual experienced as a stressful event at one time, may be considered as a more or less stressful, or even a non-stressful, event at another time in their life. Therefore an individual's perception of their stress, and their ability to cope with it, impacts their physiological and psychological response to it (Ekpenyong, Daniel, & Aribo, 2013).

Effects of Stress

There is substantial research on the health effects of stress, however, there is still much more to be learned about the variances in effect of stress on individuals. There is evidence of physical and emotional effects of experiencing stress (Slavich, 2016). These effects often lead to behavioral effects, which can impact performance in academic or career settings, and interpersonal relationships (Shields, Moons, & Slavich, 2017).

Research related to psychosocial and environmental stressors, as risk factors, generally falls into two areas: (1) those focused on a particular event, such as grief and loss, or experiencing a traumatic event, and (2) those that focus on the effects of cumulative life stress (Cohen et al., 1983). The most common stress scales measure the number of times an individual has been exposed to an event that is a known stressor for most individuals. Based on reported exposure, researchers are able to infer the stress experienced by the respondent (Kopp, et al., 2010). Cohen et al. developed a Perceived Stress Scale (PSS) in an attempt to objectively measure stressful events, in order to gain understanding of the relationship between stressors and illness. Rather than just calculating the rate of exposure, the PSS asks individuals to rate their perceptions of experiences during the last month, measuring how much the exposure to stressors impacted their life functioning. The PSS provides a view of perceived stress as a function of stressful events, coping and personality (Cohen, et al., 1983). Research, which examined the validity of the PSS, revealed that as perceptions of stress increase, physiological and psychological responses to stress increase (Cohen, Kamarck, & Mermelstein, 1983, Roberti, Harrington, & Storch, 2006.). A recent study, which utilized the PSS, focused on the effects of perceived stress in university students. The findings showed that as perceived stress increased, so did reports of fatigue, trouble concentrating, headache, mood swings, nervousness/anxiety, and difficulty with sleep (El Ansari, et al., 2014).

Physiological Effects. Many studies found a physiological response to stress (Slavich, 2016; El Ansari, Oskrochi, Labeeb, & Stock, 2014; Donovan et al., 2013; Cohen, Kamarck, & Mermelstein, 1983). A reaction, such as the fight or flight response, can lead to increases in metabolism and reduction in non-essential body functions as the body prepares for increased energy needed to respond to the stressor (Donovan et al., 2013). Other physical effects of

experiences of stress include asthma, rheumatoid arthritis, HIV/AIDS, and certain types of cancers (Slavich, 2016). Increased stress affects immune functioning, which increases an individual's risk for colds, flus, and other illnesses (Donovan et al., 2013). Chronic or intense stress can also impact executive function, which controls cognitive processing, leading to reduced cognitive function such as decision making, problem solving, and memory (Shields, Moons, & Slavich, 2017). Prolonged stress exposure can affect the adrenocortical system, and possibly lead to coronary disease (El Ansari et al., 2014). In addition to these aforementioned physical effects of stress experience, many individuals experience psychological effects, further impacting their health.

Psychological Effects. Individuals who experience deficits in executive function may have difficulty with emotional regulation, leading to significant psychological distress (Shields, et al., 2017). Psychological distress can lead to complications in function. Psychological impacts of stress include sleep disturbances, substance use, and eating disorders (Watson, 2016). Long - term exposure to stress can lead to more serious psychological disorders such as anxiety, depression and post-traumatic stress disorder (Slavich, 2016).

Risk Factors and the Impact of Stress on College Student Success

To understand how stress experiences can impact student wellbeing and their persistence to graduation, college counselors must understand the impact of stress on student outcomes and the risk factors for the populations with which they work. Stress has a negative impact on individual health and wellbeing as well as on student achievement (Ekpenyong, et al. 2013; Oman, Shapiro, Thoresen, Plante, & Flinders, 2008). As stress was found to effect executive functioning, continued stress exposure can limit a student's academic performance (Shields, et

al., 2017). Students' appraisal of the severity of the stressor is impacted by their self-concept, coping skills, and other experiences (El Ansari et al., 2014). For college students, stress can come from many factors including academic demands, interpersonal relationships, financial burdens, a lack of social support, negative social experiences, health concerns and family problems (Amzitia et al., 2013). Students who experience stress may also experience increased disengagement, less optimism, and reduced resilience (Jenkins, Belanger, Londoño Connally, Boals, & Durón, 2013). These students may experience academic difficulties, such as, deficits in critical thinking and time management skills (Gibbons & Woodside, 2014).

First Generation, Low Income, Minority Student Experiences. College students often experience significant stress due to the transition and rigors of higher education (Lee, Dickson, Conley, & Holmbeck, 2014; Lee et al., 2014). Students in Education Opportunity Programs typically experience the same challenges as other students in transition to college but also experience additional social, cultural and academic challenges (Clauss-Ehlers & Wibrowski, 2007, Pascarella, Pierson, Wolniak, & Terenzini, 2004). First year college students with low self-esteem may utilize maladaptive coping strategies in response to the stress of transition (Lee et al., 2014). Understanding students' perceptions of stress experiences during transition is important as this period impacts future outcomes (Fischer, 2007). Students who struggle during transition are less likely to persist and complete their degrees (Kuh et al., 2008).

Academic Preparedness. Level of academic preparedness may be cause for stress. Education Opportunity Programs are designed for first generation, minority, and low-income students, who do not meet minimum admissions criteria. These programs define minority students as those who are identify with at least one of these underrepresented populations on campus (Strayhorn, 2011). These students may come to college needing remedial courses to

improve their academic skills (Gibbons & Woodside, 2014). They may feel unprepared for the rigors of college work, earn lower grades than their peers or have trouble understanding their professors' use of high level vocabulary (Jenkins et al., 2013). The resulting stress experienced by these students may lead to academic or social disengagement (Keup, 2006). In addition, these students may experience decreased self-concept, increased anxiety, depression or illness (Kuh et al., 2008).

Socioeconomic status. Low socioeconomic status (SES) is a risk factor for increased stress experiences. The increased financial burden experienced by these students may result in high student loan debt, working while attending college, or attending college part time (Gibbons & Woodside, 2014). In addition, due to the challenges that living in poverty brings, individuals from a low SES background are more likely to come to campus with a history of trauma experiences and post-traumatic stress disorder (PTSD; Gibbons & Woodside, 2014). For these individuals their perceptions of stress may be greater than their peers due to a lack of positive coping strategies (Fischer, 2007).

Minority Experiences. Another source of stress for this population relates to campus climate. Minority students may face racial hostility, hate speech, microaggressions, or other negative interactions on campus. These experiences may impact their perceptions of the campus environment and result in disengagement in the campus community or in their coursework (Fischer, 2007). Academic and social norms may be vastly different than they are accustomed and therefore, these students may experience acculturative stress, which is the stress of adapting to the new culture of higher education and their campus community. This type of stress experience may lead to physical, psychological and social consequences. (Jenkins et al., 2013).

Social Support. First generation, low income or minority students may face decreased social support on campus and at home. These students often fail to report experiences of stress, which may be due to cultural norms or lack of social support (Barry, Hudley, Kelly, & Cho, 2009). Lack of strong social support networks for students was found to be a predictor of low academic outcomes (Jenkins et al., 2013). These students may need to be more proactive in identifying and accessing sources of support in order to be successful (Gibbons & Woodside, 2014). Yet, this may be difficult for first generation students who lack role models at home, who understand the myriad of college offices and services, as well as academic expectations (Lippincott & Lippincott, 2007).

Low income, minority students. Low income minority students face many challenges in higher education. They spend less time with professors, less time engaged in academic endeavors, are less involved in the campus community and work more hours than their peers (Strayhorn, 2011). This lack of engagement is reflected in enrollment as many students in this demographic leave after the first year (Pascarella et al., 2004). Strategies, such as, remedial courses, minority student associations, cultural clubs, peer mentors, and EOP can be effective to improve student outcomes (Bettinger & Long, 2011). To support these students, college counselors must better understand the barriers these students face.

Student Athlete Experiences. Student-athletes experience unique challenges compared to their non-athlete peers due to the additional pressures of sports participation and its impact on their academic and social engagement on campus (Beauchemin, 2014). Academically underprepared student-athletes likely face additional challenges as they struggle to keep up with course work, while meeting the demands of their sport participation. This can lead to additional

stress, as a student struggles to remain eligible to compete, and thus retain their place on the team and athletic scholarships (Harris, Altekruse, & Engels, 2003).

Dual roles. Student-athletes may struggle with their dual role as student and athletic performer. They are responsible for balancing their academic demands with issues such as dealing with personal injury, managing sports-related career decisions, and maintaining their body in top performance condition (Watson & Kissinger, 2007). Watson (2016) attributed increased stress experienced by student-athletes to the result of athletic identity. Individuals with a strong athletic identity place a greater importance on their role as an athlete, and perceive their self-worth based on their athletic performance. When this occurs, the student athlete's academic goals may be abandoned as they increase their focus on their athletic accomplishments (Watson, 2016). These students may be at increased risk of mental health problems such as depression, anxiety, eating disorders, and substance use; they are also more likely engage in risky behaviors further complicating these conditions (Goodman, Kashdan, Mallard, & Schumann, 2014).

Minority Athletes. There is little research on minority athletes' experiences; involvement in the campus community, however, has shown to be a predictor of black student-athletes' academic performance (Petrie & Russell, 1995). Due to the time demands of practices, games, and travel, student-athletes often lack time for social activities. Their limited free time is dedicated to academics, hygiene, and meals (Macquet & Skalej, 2015). Access to social support, beyond their team, is limited, as these students may not participate in campus activities outside of athletics (Harris et al., 2003). Another factor that impacts student-athletes seeking out social support is related to their athletic training. For athletes, stress is often considered a challenge more than a situation that is beyond their control. Thus, there may be no perceived need for social support, as the athlete identifies their own skills and their teammates as the resources

needed to overcome the challenge (Watson, 2016). This attitude leads some athletes to experience stress with positive emotions such as excitement or enthusiasm (Ben-Ari, Tsur, & Har-Even, 2006). For those who do experience negative emotions related to stress experiences, they are less likely to access support out of concern for appearing weak or lack of confidentiality due to their high profile as an athlete (Broughton & Neyer, 2001). They may ignore their feelings or use avoidance strategies in order to control their emotions and maintain their athletic focus (Goodman et al., 2014). Chronic stress, lack of social support, and negative social interactions may result in athletic burnout (DeFreese & Smith, 2014).

First generation, low income or minority student-athletes. Very little research is available regarding first generation, low income or minority student-athletes and their perceptions of stress. One study found that students who came to college lacking in the academic skills necessary to meet the demands of college level work were unable to make up the gap, despite participating in remedial courses to address those needs (Bettinger & Long, 2011). Petrie and Russel (1995) cited the factors that influence positive outcomes for first generation, low income, or minority students: having a strong support person, involvement in the community, and positive self-concept. As noted previously, however, access to social support, community involvement, and self-identity are all impacted by a student's athlete status. Thus, suggests that these students experience higher stress and lower GPA's than their peers who are non-athletes. These aforementioned findings point to the need for more study to inform college counseling practices and interventions.

Conclusion

Many studies including students as participants evaluate significant life events as stressors such as death, health problems, family separation, and transition issues related to

college, but do not investigate their perceptions of these experiences (Gibbons & Woodside, 2014; Goodman et al., 2014, Oman et al., 2008). As perceptions related to stress determine an individual's response to the stress, and therefore their risk of negative effects, it is important for college counselors to seek greater insights in this area. Student-athletes who are part of EOPs may experience greater impact of stress due to their exposure to multiple risk factors. This study seeks to gain a better understanding of the perceptions of stress experienced by this population of students. The insights learned through this research may help counselors identify student needs and gaps in services. Therefore the results of this study may help improve practices by program counselors.

Method

Participants

Data was collected from a sample of 350 students, who were members of the Arthur O. Eve Education Opportunity Program (EOP) at The College at Brockport. Students who were admitted to the college through this program must have met at least one of the following criteria: be a first generation college student, have a low household income, or be an underrepresented ethnicity (minority). Of these members, those who were current or former NCAA Division III athletes were eligible to participate in the study. Participants, who were over the age of 25 or who had never been NCAA Division III athletes at the college, were excluded from the study. Participants, who were not members of EOP, were also excluded.

Only 20% of EOP students were athletes. A total of 8 students participated in the study. Of the participants, 5 were male, and 2 were female. In an effort to maintain confidentiality due to the small sample size, no other identifying questions were asked in this study.

Instruments

Historically, stress was difficult to measure due to the subjective nature of the experience. Life-event scales were often used to determine an individual's perception of stress. These scales measure stress based on the level of exposure to stressful events over time. The PSS was designed to determine the degree to which individuals view their lives as uncontrollable, unpredictable, and overloading, as these issues are most frequently attributed to the experience of stress (Cohen et al., 1983). This objective measure asks participants to indicate the frequency of their thoughts and feelings related to stress over the past month using a Likert scale from never (0) to very often (4). Overall scores range from 0-40 with higher scores indicating higher levels of stress. Cohen et al.'s study (1983) also provided evidence for the PSS as a better predictor of health-related outcomes than life-event scales (r= .16 to .31). The PSS showed a strong internal consistency (r= .84 to .86), as well as internal and test-retest reliability (r= .52 to .70).

To understand how the participants viewed their stress experiences, a survey was created by the researcher utilizing Cohen's Perceived Stress Scale (PSS) in combination with multiple choice and open-ended questions. The five open ended questions asked participants to report on which resources they had accessed or would like to access through EOP to support them; they were included to help to provide insight to EOP Counselors to potentially improve programming and services.

Procedure

Study procedures were reviewed by the researcher's advisor and approved by the institutional review board. Participants were informed of the opportunity to engage in the study via an email sent by the EOP department secretary. The email included a description of the

study, inclusion criteria, informed consent, and a link to the survey. A reminder email was sent to all EOP students after two weeks from the initial recruitment email.

The study survey was administered online through Qualtrics and completed confidentially. Participation was voluntary and participants could end their participation at any time. They also had the option to stop and save their responses and resume the study at a later time within the data collection period. The first question on the survey provided the information for informed consent and participants who agreed to consent completed the survey. Those who did not agree to consent were directed to the end of the survey and were excluded in the study. Once the three-week deadline for completion of the survey had passed, data collection was considered complete. The data was downloaded from the online tool and data were analyzed.

Data Analysis

Analyses of the data included several steps. In the present study, perceived stressed was the outcome variable, with the survey measuring the level of stress as a function of stressful events. Statistical analysis was completed and data from open ended questions were analyzed using thematic coding.

Results

Data was analyzed using descriptive statistics, means and percentages. First the responses to the questions of Cohen's Perceived Stress Scale were reviewed to gain a general understanding of the participants' perceptions of their stress experiences. Responses to the Likert scale range from Never to Very Often and are represented using numbers 0 through 4. To determine the severity of their stress, the responses are given a numeric score and totaled for an overall score. Questions 4, 5, 7 and 8 are reversed scored when calculating an individual's total score as these questions indicate a low stress response. The mean score of participants was 17.1.

The mean score for female participants was 23.3 and the mean score for male participants was 13.4. Table 1 presents the mean score for each question on the scale.

Table 1. *Cohen's Perceived Stress Scale*

Question	% Responded					Mean
	(0)	(1)	(2)	(3)	(4)	
In the last month, how often have you been upset because of something that happened unexpectedly?	12.50	12.50	50	25	0	1.88
In the last month, how often have you felt that you were unable to control the important things in your life?	0	50	25	25	0	1.75
In the last month, how often have you felt nervous and "stressed"?	12.50	0	25	50	12.50	2.5
In the last month, how often have you felt confident about your ability to handle your personal problems?	0	0	37.50	37.50	25	1.13
In the last month, how often have you felt that things were going your way?	0	25	37.50	25	12.50	1.75
In the last month, how often have you found that you could not cope with all the things that you had to do?	0	50	25	12.50	12.50	1.88
In the last month, how often have you been able to control irritations in your life?	0	25	37.50	12.50	25	1.63
In the last month, how often have you felt that you were on top of things?	0	25	12.50	25	37.50	1.25
In the last month, how often have you been angered because of things that were outside of your control?	12.50	37.50	25	12.50	12.50	1.75
In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?	12.50	25	50	12.50	0	1.6

Note: 0 = Never, 5 = Very Often.

Participants indicated that academic concerns caused the most feelings of stress for them. Athletic participation, social activities and personal wellness were also cause for feelings of stress. Data on these experiences is outlined in Table 2 below.

Table 2. *Student Identified Concerns that Cause Feelings of Stress*

Concerns	N	%
Academics (keeping up with work load, completing assignments, understanding content)	7	34

Career (selecting a major, finding internships and jobs, post-graduation employment)	2	10
Athletic participation (practice and game schedules, performance, or injuries)	3	15
Personal wellness (managing money, health, nutrition and exercise)	4	20
Social activities (participating in clubs and events, romantic relationships, relationships with friends, roommates and others)	4	20
Other	0	0

Psychological impacts of stress were the most commons response to a question about effects of stress. Less common were difficulty sleeping and poor academic performance. One participant identified thoughts about their relationships as an effect they feel from stress. Table 3 represents the effects identified by participants.

Table 3. *Effects of Stress Experienced by EOP Student-athletes*

Effects	N	%
Excessive worry or fear	3	14.29
Sadness or depression	3	14.29
Lack of interest or withdrawal from usual activities	4	19.05
Arguments with others	1	4.76
Difficulty sleeping	3	14.29
Changes in eating (eating more or less)	2	9.52
Lower/failing grades	4	19.05
Other	0	0

Participants were asked to identify sources of support when they experienced stress. Resources included Friend, Roommate, Coach, Family member, Professor or advisor, EOP Counselor, Career Services, Hazen Health Center, Other, or No one. If participants selected *other*, they were asked to provide that resource in a follow up question. When it came to

academic concerns, 25% of participants selected friend, roommate, Career Services or no one as whom they sought support. Forty percent of students sought support from their friend for career concerns, while 20% sought support from their roommate or EOP Counselor. Twenty-five percent of participants identified friend, roommate, coach or no one as a support for athletic concerns. When it came to personal wellness concerns, 25% of participants sought support from a friend, roommate, Hazen Health Center or no one. When participants had concerns related to social or relationships, 40% sought support from a friend, while 20% named a roommate, family member, or the Hazen Health center as a source of support. The last four questions of the survey were open ended questions seeking insight on student athlete's desire for resources and support from their EOP counselor. One participant responded to these questions indicating they were highly satisfied with the support currently provided by the EOP counselors. The participant suggested utilizing creative strategies to engage students in career related activities.

Table 4. *Sources of Support for Stress Related Concerns*

Sources of Support	Friend %	Roommate %	Coach %	Family member %	Professor or advisor %	EOP Counselor %	Career Services %	Hazen Health Center %	Other	No one
academic concerns	25	25	0	0	0	0	25	0	0	25
career concerns	40	20	0	20	0	20	0	0	0	0
athletic concerns	25	25	25	0	0	0	0	0	0	25
personal wellness concerns	25	25	0	0	0	0	0	25	0	25
social/relationship concerns	40	20	0	20	0	0	0	20	0	0

Discussion

The responses to the PSS give us some insight into how "unpredictable, uncontrollable, and overloading" participant's perceived their lives to be in the last month (Cohen, et al., 1983). The results of the PSS scale indicated that participants did not perceive they have experienced a high level of stress in the last month. The majority of participants indicated they felt stressed *sometimes* to *fairly often*. They sometimes felt upset when something unexpected happened, and felt angered by things that were out of their control. Participants, however, also indicated that *fairly often* they felt able to cope with their problems, were in control of their lives and were confident in their ability to handle their problems. These findings suggest that, while these student-athletes experienced stress, they believed they had the necessary coping skills to manage it.

It is interesting to note the gender differences in perception of stress. The mean score for female student-athletes was higher than the mean score for males, which was consistent with previous studies (Cohen, et al., 1983). The mean score for EOP student- athletes, however, was lower than the mean score for the college student samples in Cohen's study; this may be due to the low number of participants in this study. Or, it may suggest that EOP student-athletes perceive stress differently than other students. One participant, in particular, received an extremely low score on the PSS, suggesting they confidently manage any challenges related to their academic and athletic demands Thus, they may perceive their academic and athletic demands as *slightly stressful, which was consistent with a previous study* where individuals identified their own skills and attitudes as necessary for overcoming obstacles and experiencing stress with more positive emotions (Ben-Ari, Tsur & Har-Even, 2006).

The most frequent areas of concerns participants identified were academic and socially related, which was consistent with previous research demonstrating that student-athletes often experience stress related to academics and social engagement due to the responsibilities of their athletic participation (Amzitia, et al., 2013; Beauchemin, 2014). Furthermore, the aforementioned research revealed that first generation, low income, minority students identified *academics* as a source of stress

Personal wellness was a concern with students, as they indicated that managing finances, nutrition, exercise and physical health caused stress. Again, the findings support previous research on the challenges revealed that first generation, low income, minority students face during college (Clauss-Ehlers & Wibrowski, 2007; Pascarella, et al., 2004). Despite the fact that personal wellness emerged as a need, EOP does not provide formal educational programming to students on wellness topics, except to encourage students to balance their engagement to ensure adequate health and wellbeing. The lack of a formal approach may correlate to participants' experiences of stress in this area, and should be considered as a focus of future research and program development.

Psychological and physiological impacts related to participants' perceptions of stress experiences were similar to the findings in other studies. Participants were most likely to experience lower or failing grades, or a lack of interest or withdrawal in activities as a result of stress. EOP student-athletes, who have additional risk factors for academic success, may respond to stress experiences in a manner that further impedes their success (Shields, et al., 2017). Furthermore, as student-athletes are likely to struggle with social engagement, withdrawal from such activities further reduces their ability to foster relationships outside of their athletic teams (DeFreese & Smith, 2014).

In regards to supports that EOP student-athletes utilize to help them in times of stress, participants were most likely to seek the support of a friend or roommate. Participants indicated they would seek the support of their EOP counselor more often than their coach. Participants, however, indicated they were likely to access their EOP counselor for support related only to academic and career concerns, despite the counselors being available to students for any reason. Students were least likely to see a professor or academic advisor for academic concerns, or utilize Career Services for career concerns. The majority of participants indicated they received support from *no one* for their personal wellness concerns. These findings align with research indicating first generation, low income, minority students struggle to make connections with the various campus resources and networks of support, which further limits their ability to succeed (Amzitia, et al., 2013; Clauss-Ehlers & Wibrowski, 2007; Pascarella, et al., 2004).

Limitations

There were some limitations related to this research study, especially in regards to the research design. There was only one email reminder to encourage students to engage in the study. As online surveys do not yield a high response rate, additional reminders or a paper survey might have increased overall participation (Sauermann & Roach, 2013). In regards to concerns that cause stress, a change to the format of the questions would have allowed for deeper insight into the participants' perceptions of stress. Questions, such as, whether the participant was a current or former athlete, if they were actively working out with their team (in season or off season) at the time of the survey, or how many years' experience they had on the team, might have helped to provide a better understanding of participants. In addition, questions that allowed for students to self-identify specific concerns and effects (related to academics, career, athletics, social, and personal wellness), could have provided a richer understanding of the participants'

perceptions related to their stress experiences. Finally, only 14% of eligible student-athletes participated, thus, providing a limited understanding of the perceptions of stress and the needs of this target population.

Recommendations

Future research in this area is needed to better understand student-athletes' perceptions of stress. It could provide insight into how much athletic identity plays a role in coping with stressful events and how to transfer those skills into areas of concern (e.g., academics, social activities). The knowledge gained from future research could help inform best practices for EOP counselors in regards to student development, leading to increased persistence and retention.

As participation in the online survey was low, EOP counselors at The College at Brockport might consider conducting a paper survey, including questions to determine student-athletes' needs. In addition, EOP counselors could partner with athletic department staff to provide coordinated programs and improve communications related to student-athletes and expectations of each program. EOP Counselors might consider providing psychoeducation to student-athletes to improve their stress management skills. It would seem student-athletes may benefit from organizational skills programming, as well as, an enhanced orientation to campus resources. It might be helpful to incorporate wellness topics and stress as part of the services offered by the program. This could help student-athletes meet the challenges related to academic and social concerns, and also, increase their support network on campus. Stress is not something that can be avoided, however with support, student-athletes can develop positive coping skills and a mindset that views stress as a vehicle for achieving one's goals.

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