RESILIENCE FOR THE ROCKY ROAD: SUPPORTING FIRST YEAR STUDENT-ATHLETES IN THEIR TRANSITION TO COLLEGE

Problem:

First-year student-athletes encounter new time and energy demands, experience challenges of independence and autonomy, are exposed to new elite athletic environment where expectations and psychological pressures are heightened, and have their support networks altered.

Program Design:

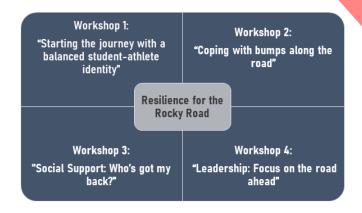
This project designed and evaluated an in- person and online resilience-based educational program for first-year student atheletes at two Division I universities



In-Person 67 student-athletes



Online 106 student-athletes



Key Findings

- Student-athletes maintained a high level of resilience throughout their first semester
- Student-athletes experienced low levels of distress throughout their first semester
- Student-athletes experienced a slight increase of stress while completing the program, but stress decreased from following completion the program (when expected to increase)
- Student-athletes' social identity (the level they identify as an athlete) increased throughout the program and their exclusivity (the level they see themselves as ONLY an athlete) decreased during the program
- Student-athletes life satisfaction stayed consistent while completing the program then increased following the program



of student-athletes took steps to balance identity, use coping strategies, seek support, improve leadership skills 9/10 believed the program was beneficial for identity, coping, social support, and leadership



93%

of student-athletes recommended that future student-athletes participate in the resilience program NCAA Innovations in Research and Practice Grant





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Implications for Campus Level Programming

- Negative components of athletic identity can be modified without compromising the importance of the athlete role
- The maintenance of several construct scores across the program was positive
- Educate coaches and support staff to facilitate student-athlete resilience because developing student-athlete resilience cannot be accomplished in a single program
- Tailor educational programming to your student-athletes and your university
- Identify and empower champions to drive resilience and psychological development programming
- Promote active and collaborative learning experiences in face-to-face and online programs

Resilience for the rocky road: Supporting first year student-athletes in their transition to college

NCAA innovations in Research and Practice Grant Final Report

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Resilience for the rocky road: Supporting first year student-athletes in their transition to college

Problem Statement

The transition from high school to college brings many challenges, yet also presents the opportunity for personal growth and development (Compas, Wagner, Slavin, & Vannatta, 1986; Gayles & Baker, 2015). Academically and socially, students encounter increased course rigor, decreased in-class time, and adjustment to new social groups (Kadison & DiGeronimo, 2004). Additionally, student-athletes encounter scrutiny from the public, extensive time commitments, and physical and mental demands as they combine athletic and academic pursuits (Carodine Almond, & Gratto, 2001). For first year student-athletes, resilience emerges as a psychological quality that can greatly benefit student-athlete development. Strengths-based programming can aid in student-athletes creating a more holistic student-athlete experience linked to increased self-esteem (Martin, 1999), quality of life (Groff, Lundberg, & Zabriskie, 2009), and athlete satisfaction (Burns, Jasinski, Dunn, & Fletcher, 2012). Currently, several NCAA institutions offer programming to aid in this transition. However, little empirical data has been collected to assess the success of such programs and programs have little standardization between institutions (Ohashi & Martin, under review). Because of the variation between programs and their available resources, NCAA institutions would benefit from the systematic design and evaluation of curriculum that is multi-modal and accessible to a larger number of member institutions. This project presents the development and evaluation of an in- person and online resilience-based educational program with a specific focus on developing a healthy student-athlete identity, stress management and coping skills, social networks, and a leadership mindset.

Literature Review

One of the major challenges for all student-athletes involves balancing the academic, athletic, and social roles and expectations (Gayles & Baker, 2015). Student-athletes must establish appropriate support networks, develop a range of psychological skills, and deal with multiple obstacles and experiences of failure as they navigate the college athletic experience (Morgan & Giaccobi, 2006). These challenges and requirements are heightened in the midst of the transition from high school to college and the beginning of life as a collegiate student-athlete.

First year student-athletes will encounter new demands on their time, energy, and resources in academic, athletic, and social domains (Gayles & Baker, 2015). This transitional period comes with psychological and social challenges of independence and autonomy (Arnett, 2000), along with the new, elite athletic environment where performance expectations and psychological pressures are heightened (Wylleman, 2017) and support networks (e.g., coaches, parents, teammates) have been altered (Côté, 1999). To understand this transition further, Childers, Pierce and Amorose (2019) interviewed student-athletes who had recently completed this transition. These student-athletes struggled with intensified athletic and academic pressure, a lack of confidence in responding to challenges, communication issues with coaches and teammates, and transitioning from "being a big fish in a little pond in high school to being a small fish in a big pond in college." Future research needs to continue to examine how student-athletes experience adversity and transition from high school to college, with a specific focus on the interactions between social support and student-athlete development (Morgan & Giaccobi, 2006).

Resilience programming is one tool that can aid student-athletes in more adaptively navigating this transition. Resilience is a process of positive adaptation as a result of significant adversity (Luthar, Cicchetti, & Becker, 2000) and the ability to use personal qualities to withstand these pressures (Fletcher & Sarkar, 2016). Resilience can be conceptualized as proactive, "robust resilience", referring to protective

qualities to maintain well-being or performance under pressure, and reactive, "rebound resilience", as one's ability to bounce back to normal functioning following disruptions to well-being or performance under pressure (Fletcher & Sarkar, 2016).

In one of the first studies on resilience in sport, Galli and Vealey (2008) interviewed athletes on what influenced resilience and found that personal characteristics (e.g., being positive, competitiveness, persistence), sociocultural influences (e.g., social support), and coping strategies influenced this process. Further, in interviews with twelve Olympic champions, Fletcher and Sarkar (2012) found that psychological factors including positive personality characteristics (e.g., conscientious, innovative, optimistic), perceived social support, motivation, confidence, and proper focus promoted a resilient response when confronted with various stressors. While resilience is recognized as a psychological quality that facilitates athletic and academic success, however, is not automatically developed as the result of significant adversity. In fact, some individuals succumb to pressure which can negatively affect personal well-being and performance (Fletcher & Sarkar, 2016).

Conceptual Framework

Resilience Training Programming

Resilience training methods should focus on both proactive (i.e., robust) and reactive (i.e., rebound) resilience with the long-term goal to increase resilience bandwidth, or the enhanced capacity and ability to respond to stressors (Fletcher & Sarkar, 2016). While a focus on the individual is at the center of any resilience-based education, the development of resilience is a multifactorial endeavor for sustained success. Specifically, Fletcher and Sarkar (2016) recommend a focus on (1) optimizing student-athletes' personal qualities to be able to withstand the stressors that they will encounter (Fletcher & Sarkar, 2016); (2) a facilitative environment where student-athletes operate in a developmental climate of high challenge (e.g., high expectations) and, high support (Fletcher & Sarkar, 2016; Sanford, 1967); and (3) a challenge mindset, where individuals are trained to positively evaluate and interpret the pressure and their own coping resources, thoughts and emotions to deal with the challenges that arise (Fletcher & Sarkar, 2012, Fletcher & Sarkar, 2016).

Because resilient student-athletes who have the ability to cope with stressors are the most likely to be successful on and off the athletic field, our program employed a strengths-based approach to promote resilience and help student-athletes enhance their wellbeing and performance during the transition from high school into their first year of college. Two tenets for supporting and facilitating student-athlete resilience development provided the foundation for this program: a strengths-based focus on training that encourages individuals to develop skills, qualities assets, and tools to nurture excellence in sport (Aoyagi & Pocwardowski, 2012; Fletcher & Sarkar, 2016); and the transfer of these skills between sport and other life domains (Pierce, Gould, & Camiré, 2017). These tenets guided the design of this educational program built around demonstrating resilience during the challenging developmental transition into emerging adulthood and higher education.

Program Design and Modality

To further enhance the impact and potential reach of the resilience programming, the curriculum was delivered in two different modalities. At Boise State University, in-person workshops were integrated into an existing in-person first year course for student-athletes. At Illinois State University, the identical programming was presented to student-athletes via online workshop modules which they completed at their own pace. For both modes of programming, the curriculum was designed using Bloom's taxonomy for cognitive learning (Anderson et al., 2001) and emphasized active learning tasks designed to prompt

participants toward effortful and repeated retrieval of information with application of knowledge (Brown, Roediger III, & McDaniel, 2014). In addition, the online program utilized the Technological Pedagogical Content Knowledge, the de facto standard for facilitating online learning, to promote the thoughtful and systematic reflection on how to use the psychological skills and life skills content and active learning pedagogy (Mishra & Koehler, 2006).

Educational Program for First-Year Student-Athletes: Resilience for the Rocky Road

Our program consisted of a resilience introduction session and four content-specific workshops. For each workshop, learning objectives were designed that aligned with our conceptual program design. Overviews of each workshop session are provided below and detailed lesson plans and workbook are included in the two *Instructor Handbooks* (one for online and one for in-person workshops) and *Student-Athlete Workbook*.

Introduction to Resilience

An introductory module was designed to introduce the program to student-athletes with specific emphasis on emphasizing that resilience was a guiding framework for the program. Embedded and described within the program model (see Figure 1), were the evidence-based objectives that student-athletes would (1) develop personal qualities and psychological skills; (2) learn how to maximize their environment to gain support to facilitate resilience development; (3) adopt a challenge mindset and learn coping resources to aid in positively evaluating adverse situations; and (4) enhance their awareness and ability to transfer personal qualities, psychological skills, and resilience between athletics, academics, and social realms (Fletcher & Sarkar, 2016; Pierce et al., 2017).

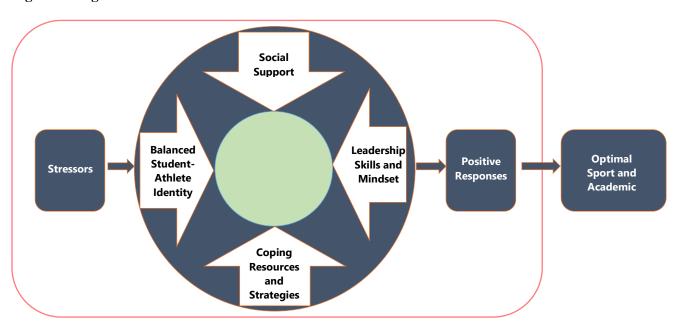


Figure 1.Program model

Workshop 1: "Starting the journey with a balanced student-athlete identity"

For many student-athletes, the athlete role is the most significant piece of their identity. In fact, some athletes see the role of student and athlete as competing, so they actively neglect growth opportunities outside of sport (Lance, 2004). Role engulfment or developing a narrow vision of one's identity can lead

to difficulties such as lower career maturity (Houle, & Kluck, 2015) and anxiety as they transition out of sport (Brewer, Van Raalete, & Linder, 1993, Grove. Lavallee, & Gordon, 1997). In addition, this decreased exploration of identity can limit athletes' ability to demonstrate resilience, a trait Galli and Vealey (2008) and Fletcher and Sarkar (2012) identify as being critical to athlete success. As individuals appraise the stressors in relation to their own goals (Lazarus, 1966; Fletcher & Sarkar, 2016), focusing on developing a balanced student-athlete identity was a critical first priority

The first workshop focused on identity development with students assessing personal strengths and weaknesses, reflecting on past experiences and how those experiences shaped their identity, exploring the concept of a balanced personal identity, and examining how positive characteristics in sport could transfer to other life domains.

Workshop 2: "Coping with bumps along the road"

One especially critical factor in how student-athletes manage stress effectively is their method of coping. Stress is inevitable in the life of a college student (Brown, 1992) and failure to cope effectively with stress may lead to short- and long-term issues (Chang, 2006; Hudd et al., 2000). Student-athletes can learn to adapt their appraisal of pressure as well as their coping strategies to deal with harm, threats and challenges (Lazarus, 1966; Fletcher & Sarkar, 2016). The most common coping models distinguish between problem-focused and emotion-focused coping strategies (Lazarus & Folkman, 1984). Problem-focused coping refers to efforts that identify and solve a problem while emotion-focused coping decrease emotional distress and are utilized when the problem cannot be modified. Both types of coping are important for student-athletes, but emotion-focused coping is especially critical for resilience as effective cognitive appraisal and psychological responses to stress have been shown to facilitate resilience (Fletcher & Sarkar, 2012).

The second workshop focused on athletes' self-assessment of their coping style preferences, provided examples and applications of various novel coping strategies, and had athletes create a specific positive coping plan for when stress occurs in both the academic and sport contexts.

Workshop 3: "Who's got my back?"

An athlete's ability to identify their social support and engage in the process of cultivating healthy relationships is critical to managing stress and demonstrating resilience in stressful situations. In fact, in a recent review of both the occupational and sport settings, Bryan, O'Shea, and MacIntyre (2017) found that support was the most highly cited psychological resource associated with the resilience process. If athletes perceived high levels of social support, they were more apt to have a facilitative response to stress (Fletcher & Sarkar, 2012). Additionally, a recent study indicated that the support type athletes received (e.g., informational, emotional, and esteem) accounted for unique variance in athletes' satisfaction with coaches and their own sport experiences.

In the third workshop, student-athletes learned about the various types of social support through student-athlete case study examples, completed self-assessments on their own support preferences, learned of social support networks available in their environment, and produced a plan on how to use those networks when they encounter stressful situations.

Workshop 4: "Focus on the road ahead"

Coaches and athletes identify leadership as one of the most important life skills athletes should acquire and develop for sport and life success (Gould, Chung, Smith, & White, 2006). It is problematic that coaches frequently identify poor leadership as a problem among adolescent athletes today, and many

young athletes believe that they are not provided opportunities to exercise advanced leadership skills in the high school sport setting (Gould et al., 2006; Voelker, Gould, & Crawford, 2011). Like resilience, student-athletes can develop leadership skills and mindsets if they are aware and appraise their experiences in sport and life as opportunities to grow as a leader (Pierce, Erickson, & Sarkar, 2019).

In the fourth workshop, student-athletes were introduced to leadership styles, reflected on their personal leadership preferences and approaches, learned from current student-athletes about explicit (e.g., ask for recommendations from coaches) and implicit (e.g., learn from role- modeling from teammates/peers) leadership development opportunities, and created a plan for developing a resilient leadership mindset as a student-athlete.

Methodology

The program was conducted at two universities with two different modes of delivery but identical learning outcomes. At Boise State, the program was taught in-person, integrated into an Academic 101 course designed to support freshman student-athletes. In previous years, the Academic 101 course content focused on a number of topics focused on introduction to the university and college life (e.g., career center services, meet the professors, and monitoring your digital presence). This year, the four workshops were integrated into the course with each workshop being covered in a single class session (lasting 1 hour 15 minutes). The first session was conducted October 8 and the final session was completed October 29. The Academic 101 course had two sections with identical content in both sessions. All sessions were taught by Dr. Eric Martin who is an Assistant Professor at the university and a Certified Mental Performance Consultant (CMPC) and Kelly Rossetto who is an Associate Professor at the university and an expert in social support, coping, and resilience.

At Illinois State University, the program was conducted online with each of the four workshops being available in distinct modules. The modules opened at the beginning of the semester and student-athletes could complete each module and the program as a whole at their own pace. The content was prepared by Dr. Scott Pierce who is an Assistant Professor at the university and a Certified Mental Performance Consultant (CMPC) and presented on the university's web-based learning management system. Academic services staff helped to introduce the program to all first-year student-athletes and ensured that they completed the four modules. While they suggested that best practice for the modules was to complete one module per week for four weeks, this was not a requirement.

Due to the self-paced nature of the online survey, data collection timelines differed slightly. For Boise State University student-athletes, initial data collection took place in class during the first week of classes (August 27). Time 2 data collection was completed following the fourth workshop on October 29. Final data collection for the in-person workshops was done during dead week (the week before finals week; December 10). For Illinois State student athletes, the first survey data collection opened on September 3 and students were told to complete the survey prior to completing the first online workshop module. Student-athletes then were allowed to complete the Time 2 survey upon completion of the final workshop module. The length of time from completing the Time 1 to the Time 2 survey varied significantly with some student-athletes completing the four workshops in one day while others allowed for a greater time between workshop modules (M = 16.6 days; Range = 0 - 54 days). The Time 3 surveys were collected during the final two weeks of the semester, between December 1 and December 13. Surveys for the control group mirrored the data collection for the in-person group and were collected at similar times in the semester when convenient for the instructor of the freshman introductory course (T1 = August 27; T2 = October 29; T3 = December 3).

Participants

In total, 135 student-athletes and 56 control group participants completed the survey at all three time points. Specifically, at Boise State University, a total of 67 student-athletes were enrolled in the Academic 101 course and 62 completed surveys at all three time points (92% fully completed). In the Boise State cohort, the group was split evenly between male and female athletes (male athletes = 30; female athletes = 32), indicated they were primarily white/Caucasian (n = 42) with others indicating they were black/African-American (n = 9), prefer to self-describe (n = 5), Hispanic/Latinx (n = 4), American Indian or Alaska Native (n = 1), and Native Hawaiian or Pacific Islander (n = 1), and were split between full scholarship (n = 26), partial scholarship (n = 28), and no scholarship (n = 8).

At Illinois State University, 106 student-athletes completed surveys at some time point and 73 completed them at all three time points (69%). In the Illinois State cohort, the group had a higher number of female athletes than male athletes (male athletes = 32; female athletes = 41), indicated they were primarily white/Caucasian (n = 54) with others indicating they were black/African-American (n = 13), prefer to self-describe (n = 4), and Hispanic/Latinx (n = 2), and were split between full scholarship (n = 22), partial scholarship (n = 36), and no scholarship (n = 15). The athletic department staff for both universities were critical in recruitment and retention of a majority of athletes in the study.

For the control group, 99 students completed surveys at one of the three time points and 56 completed surveys at all three time points (57%). The control group also had a higher number of female participants than male participants (male participants = 20; female participants = 36), indicated they were primarily white/Caucasian (n = 42) with others indicating they prefer to self-describe (n = 6), Hispanic/Latinx (n = 3), black/African-American (n = 2), and Asian (n = 2). For all data analyses, only participants who had completed surveys at all three time points were included.

Evaluation Measures

Participants were assessed in a number of ways during the project. From a quantitative perspective, participants completed a number of validated and reliable scales to measure several psychological constructs at each time point of the project (Beginning of semesters, following completion of the workshops, end of semester). All participants (student-athletes and control group) completed measures that assessed distress in terms of anxiety and depression (Kessler Psychological Distress Scale; Kessler et al., 2002), perceived stress (Perceived Stress Scale; Cohen, Kamrarck, & Mermelstein, 1994), satisfaction with life (Diener, Emmons, Larsen, & Griffin, 1985) and resilience (Connor Davidson Resilience Scale; Connor & Davidson, 2003). In addition, student-athletes completed a measure that assessed athletic identity at all three time points (Athletic Identity Measurement Scale; Brewer, 1990). At the final time point, student-athletes also completed surveys assessing program effectiveness in a variety of ways. Specifically, student-athletes indicated their perceptions of how beneficial the program was for the transition to university, how beneficial they believed the workshops would be for the rest of their time at university, if they took specific actions in regards to the topics of each of the workshops, likelihood of engaging in future workshops, and if they would recommend the program to future college student-athletes.

In an attempt to gain more in-depth understanding of student-athletes perceptions of the program, three focus groups were also conducted (two at Boise State University and one at Illinois State University). In total, 15 participants engaged in these focus groups that focused on overall effectiveness of the program and suggested changes to further improve the program.

Data Analysis

For all study variables at all three time points, we calculated descriptive statistics for all three groups (in person, online, and control). Additionally, as we wanted to investigate the effectiveness of the program compared to a control group, we conducted four repeated measures ANOVAs with time (T1, T2, and T3) and group (student-athlete, control) as independent variables and (1) distress, (2) stress, (3) satisfaction with life, and (4) resilience serving as dependent variables. Additionally, as we aimed to investigate how athletic identity changed across the course of the semester, four repeated measure ANOVAs were conducted with time as the independent variable and (1) total athletic identity, (2) social identity, (3) exclusivity, and (4) negative affectivity as the dependent variables.

Findings

Descriptive Statistics

In terms of descriptive statistics, student-athletes in our sample showed positive markers of mental health (see Table 1). Specifically, student-athletes had relatively low levels of stress and distress and high levels of resilience, athletic identity, and satisfaction with life. In relation to the control group, athletes scored lower than the control group on the markers of negative mental health (stress and distress) and higher on resilience. In terms of satisfaction with life, athletes scored lower than the control group in Time 1 and Time 2, but then increased markedly and showed higher satisfaction with life than the control group at Time 3.

Table 1. Descriptive statistics for student-athletes and control group participants.

		Time 1		Time 2		Time 3	
	Scale Range	Student- Athletes	Control	Student- Athletes	Control	Student- Athletes	Control
Distress	1-5	1.52	1.94	1.63	2.29	1.60	2.07
Stress	1-5	2.25	2.54	2.44	2.82	2.33	2.65
Resilience	1-5	4.18	3.84	4.24	3.85	4.22	3.88
Satisfaction with Life	1-7	4.86	5.34	4.79	5.16	5.45	5.28
Athletic Identity (AIMS) Total	1-7	5.55		5.35		5.39	
AIMS Social Identity	1-7	6.05		5.92		6.40	
AIMS Exclusivity	1-7	5.24		4.92		4.45	
AIMS Negative Affectivity	1-7	5.10		4.93		4.82	

Changes over time

The repeated measures ANOVA for distress and time was significant, F(2,189) = 11.79, p < .001 indicating that time impacted how distress was perceived in our groups. The interaction between time and group was also significant, F(2,189) = 3.78, p < .05 indicating how the groups experienced distress across time differed. Follow up tests indicated that the control group experienced an increase in distress at Time 2 during the middle of the semester and then distress levels returned back to baseline at Time 3. Student-athletes did not experience changes in their distress and perceived low levels of distress throughout the semester.

The repeated measures ANOVA for perceived stress was significant, F(2,189) = 20.05, p < .001 indicating that time impacted how stress was perceived in our groups. In both the student-athlete group and the control group, participants experienced low levels of stress at the beginning of the semester, saw a slight increase at the Time 2 and then experienced lower levels of stress at Time 3. The interaction between time and group was not significant, F(2,189) = .68, p > .05 indicating that our groups perceived stress across time similarly. Interestingly, student-athletes perceived lower levels of stress at all three time points than our control participants.

The repeated measures ANOVA for resilience was non-significant, F(2,189) = .32, p > .05, indicating that resilience scores did not change across the course of the semester. Further, the interaction between groups was also not significant, F(2,189) = .76, p > .05, indicating that the groups did not experience changes in resilience across the course of the season differently. Student-athletes again scored higher in resilience across all three time points compared to the control group participants.

The repeated measures ANOVA for satisfaction with life was significant, F(2,189) = 9.52, p < .001, indicating that perceptions of life satisfaction changed over time. Further, the interaction between groups was significant, F(2,189) = 4.30, p < .05, indicating that the change in life satisfaction differed in our groups. Participants in the control group did not experience any changes in their life satisfaction across the course of the semester. However, student-athletes life satisfaction was constant from Time 1 to Time 2, but increased significantly from Time 2 to Time 3.

Finally, four repeated measure ANOVAs were conducted to assess if athletic identity changed across the course of the program. The repeated measure ANOVA for total athletic identity was not significant, F(2,131) = 2.90, p > .05, indicating that total athletic identity did not change over the course of the semester. In terms of the subcomponents of athletic identity, there were changes that happened over the course of the semester. The repeated measures ANOVA for social identity was significant, F(2,131) = 11.35, p < .001, indicating that social identity changed across the course of the semester. Examination of group means indicate that social identity stayed constant from Time 1 to Time 2, but then saw an increase from Time 2 to Time 3. In terms of exclusivity, the repeated measures ANOVA was also significant, F(2,131) = 12.62, p < .001, indicating a change across the course of the program. Examination of group means shows that exclusivity decreased from Time 1 to Time 2 and then continued to decrease from Time 2 to Time 3. Finally, the repeated measures ANOVA for negative affectivity was not significant, F(2,131) = 1.92, p > .05, indicating a relatively constant score on this variable across the semester. Then, for athletic identity, during the course of the program the identity student-athletes derived from the athlete role increased while the exclusive nature of the athlete role decreased.

Student Perceptions of the Program

Student-athletes who completed both the online and in-person sections of the programming were asked to evaluate multiple aspects of the program. First, student-athletes rated the four sections of the

program and the overall program in terms of how beneficial the program was for their transition from high school to university and how beneficial they believed the program would be for their 4-5 years at their university. In total, student-athletes evaluated the program very positively. In fact, all of the workshops scored near the top of the five-point likert scale (see Table 2). Those in the in-person program rated the program slightly more beneficial than the online students, but scores were similar between the two groups.

Table 2. Student-athlete evaluation of the program workshops in relation to the transition to university for all athletes, and in-person and online sections.

How beneficial was the program for your <u>transition from high school to university</u> ?				
	Total	In-Person	Online	
Creating a balanced student athlete identity	3.87	4.08	3.73	
Coping with bumps along the road	3.95	4.17	3.79	
Social Support	3.88	4.09	3.73	
Leadership	3.90	4.02	3.82	
The overall program	3.97	4.14	3.86	

In addition to student-athletes evaluating the program on the effectiveness for the transition to university, also evaluated the future program impact (see Table 3). Student-athletes again rated the effectiveness of the program near the top of the five-point likert scale indicating that they were optimistic the program would be beneficial to them as they moved through their academic careers. Again, those students in the in-person section of the program rated all workshops as slightly higher than those in the online sections, but scores in both groups were high.

Table 3. Student-athlete evaluation of the program workshops in relation to the benefit for their remainder at university for all athletes, and in-person and online sections.

How beneficial do you believe the program will be for you during your 4-5 years at university				
	Total	In-Person	Online	
Creating a balanced student athlete identity	4.04	4.09	4.00	
Coping with bumps along the road	4.08	4.28	3.94	
Social Support	4.02	4.25	3.86	
Leadership	4.12	4.27	4.01	
The overall program	4.08	4.25	3.97	

In addition to evaluating how beneficial the program was for the transition and remainder of time at University, student-athletes also indicated if they had taken specific action because of the program curriculum. Again, student-athletes scored high on all four dimensions of the workshop with their highest score being a higher understanding of finding social support that can aid them in difficult times (see Table 4). Student-athletes in the in person program scored slightly higher than the online group, but once again, both groups scored high on perceived changes in behavior due to the program.

Table 4. Student-athlete evaluation of their behaviors following program for all athletes, and in-person and online sections.

	Total	In-Person	Online
I have taken steps to become a better-rounded individual.	3.87	4.08	3.73
I use better coping strategies.	3.87	4.09	3.72
I better understand the social support available to me.	4.04	4.29	3.87
I am a better leader.	3.86	4.06	3.71

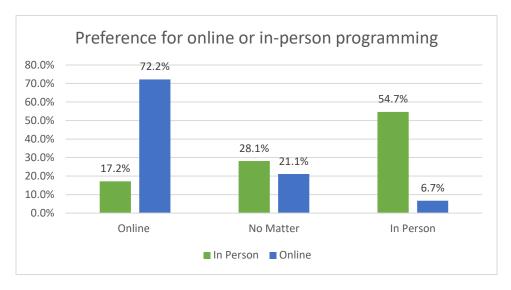
Student-athletes were also asked a number of questions concerning engaging in future programming or if they would recommend the programming to future student-athletes. Again, student-athletes perceived the program positively by indicating they learned important concepts in the program, they enjoyed the program, and they recommended for future student-athletes (see Table 5). In fact, 93% of student athletes recommended that future student athletes take the program. Interestingly, even though athletes indicated they received benefits from the program both in the transition to university and for future academic years, made actionable changes due to the program, and learned important concepts from the program, the lowest score of any of the program evaluation items was on if they would have voluntarily completed the course on their own (M = 3.32). Similar to other perceptions of the program, those athletes in the in-person program rated the workshops higher than those in the online program, but all mean scores were high.

Table 5. Student-athlete perceptions of the program for all athletes, and in-person and online sections.

	Total	In-Person	Online
I would be interested in more programming related to the concepts that were covered in the program.	3.47	3.80	3.24
I learned important concepts because of the program.	3.85	4.11	3.67
I enjoyed the program.	3.72	4.16	3.41
If I had the choice, I would voluntarily complete this program.	3.32	3.64	3.10
I would recommend that future student-athletes take this program.	3.96	4.34	3.68

Finally, student-athletes were asked about their preference for how they would have taken the training. Interestingly, those in the online programming overwhelming stated they preferred the online programming while those in the in-person programming overwhelmingly said they preferred the in-person programming (see Figure 2).

Figure 2. Preference for online or in-person programming by those in the online and in-person workshops.



Focus Group Results

Influence of the program on student-athletes' views and experiences of the transition to college

At the conclusion of the program, fifteen student-athletes who completed both the online and in-person modes of programming were asked to evaluate the program in focus group interviews. The student-athletes from both online and in-person modes indicated that the program had a direct influence on their lives as student-athletes and provided examples of situations where they applied the information to overcome a challenging time. For example, one student-athlete commented that it changed her broader perspective of life as a student-athlete and showed her the commonality of issues for all student-athletes:

I think it opened my eyes because when I am having a stressful day I feel like I'm just overwhelmed and I feel like I'm the only person going through this, but it made realize there are other student-athletes that are dealing with the same stuff that I'm dealing with.

Student-athletes also highlighted that the information helped them to take greater control of their day-to-day lives and overcome the pressure and stress of being a student-athlete. One individual noted:

It kind of forced you to slow down and take things in and once you start doing that it's kind of hard to just throw that away entirely and go back to where it was and you start realizing things and you feel you have more control over things.

Similarly, another student-athlete provided an example of when the program directly impacted their response to stress and challenges in their first semester:

It was definitely helping me balance if I got stressed out about something like 'oh my gosh, I have to go work out and then [head] straight to class'. If I was ever stressed about stuff like that it

helped me just learn those coping mechanisms [and] just helped me be like 'ok, it's going to be fine', like use them to help me de-stress.

Benefits and Challenges/Limitations of In-Person Versus Online

A primary goal of the focus group interviews with student-athletes was understanding the perceived benefits and challenges/limitations of completing the program in the in-person versus online format.

The in-person program created opportunities to engage with other student-athletes. Student-athletes who completed the program in-person indicated that a benefit of this mode of programming came in the form of greater engagement with the content:

I think it forces you to actually engage with the content and actually slow down and internalize it because I know for me if I'm taking an online class it's really difficult to get into the like application of it when I'm sitting at the computer. It's really easy on an online assignment to just click through and get it over with versus if I'm sitting in the classroom with a professor it's a lot harder to just fake your way through it.

To expand on the value of engagement, one student-athlete highlighted the need for real authenticity and vulnerability in the in-person format.

I think if you're doing it on a computer you can kind of fake your way through whole thing, but in-person it's kind of hard to be fake in those situations like you have to be kind of honest like especially you have teammates in your class so you're in front of the people that you're around all the time so they kind of know if you're lying or not.

These perceptions were reinforced by student-athletes who completed the program online. They commented that completing it in-person would have provided a broader range of experiences and would have introduced them to more resources:

I think you can benefit from it [in-person] because you can first-hand learn from other people and like what they are going through and you can possibly then make friends with them and find other outlets ... in other people in different sports and get a better understanding of what they're going through rather than just what you're going through.

While the online program was recognized for being helpful in facilitating self-reflection, a student-athlete reflected that completing the program in-person would have provided greater awareness of the difficulties faced by other student-athletes and how they could help in the wider community:

I feel that the online is more self-centred where it's like you're answering the questions only about yourself, but then if you're in a group you hear the different points from different people and what different people are going through and how to respond to that at the same time.

The online program provided flexibility and convenience. Student-athletes who completed the program online highlighted convenience as a core benefit of this mode of programming. As one student-athlete said:

I think a benefit of having it online is that you can do it [workshops] whenever you want, and you can complete it [program] whenever you want. There is no said date of when you have to do this workshop on this day and end it [program] on this day. You can do it all in a day or you can spread it out to however long you want. I just like that we didn't have a timeframe for each workshop.

Holding student-athletes accountable for their learning was challenging in the online program. The student-athletes who completed the program online were in agreement that a major challenge facing this mode of program was a reduced sense of *accountability* for participation which led some student-athletes to put forth very little commitment and effort:

Since you could sit down and do it all at once, they [some student-athletes] wouldn't even read the questions they would just go 'click, click, click' and then [onto the] next workshop...they didn't actually think about anything.

Implications for Campus Level Programming

1. Negative components of athletic identity can be modified without compromising the importance of the athlete role

Student-athletes in our program reported increases in their social identity (the level they identify as an athlete) throughout the program and decreases in their exclusivity (the level they see themselves as ONLY an athlete), indicating that during the program they adopted a more balanced identity. As an exclusive athletic identity can lead to a host of problems, especially when athletes transition out of sport (Brewer, Van Raalete, & Linder, 1993, Grove. Lavallee, & Gordon, 1997; Houle, & Kluck, 2015), these findings are positive. This finding is somewhat surprising when considering that it would be logical for student-athletes to increase in all three domains of athletic identity due to the increased emphasis of competition, high expectations of performance, and integration into a new team environment. In addition to indicating program effectiveness, these findings suggest that the two universities that implemented this program currently have supportive cultures for balanced student-athlete identities. If student-athletes can focus on being well-rounded in their overall identity in these early phases of their sport careers, without sacrificing their perceptions of themselves as athletes, they should be able to have a more successful exit out of sport when that ultimately occurs.

2. The maintenance of several construct scores across the program was positive

The lack of change of several of the variables should not be seen as a negative to the program. In the student-athlete groups, the level of stress, distress was near the bottom of the scale and the level of resilience was near the high point of the scale. Both of these variables might be experiencing a ceiling/floor effect. In essence, because they were high functioning, reducing their levels of stress/distress and increasing their levels of resilience would be very difficult. Instead, it would be more likely that since they were at the ends of the scale that these would see maladaptive changes in the variables over the course of their first semester program. The fact that distress did not change, resilience stayed high, and stress, except for a slight jump at mid-semester, stayed low may indicate that student-athletes were utilizing the skills learned in the program to maintain healthy levels of these constructs. As the program was designed to preemptively build skills for when challenges arise, the maintenance of healthy scores is a positive.

Further, even though there was no change in a number of variables, satisfaction with life did see an increase across the course of the program. In fact, in comparison to the control group, student-athletes had lower levels of satisfaction with life during the first two time points and then experienced a dramatic increase at Time 3 where their scores were higher than the control group. Although it is impossible to know the exact mechanism for this change, the subjective evaluations of student-athletes indicate that they were taking actionable steps in becoming a more well-rounded individual, utilizing new coping strategies and social support, and growing as a leader. If student-athletes were able to integrate these skills into their own lives, it is no surprise that their life satisfaction increased as well.

3. Educate coaches and support staff to facilitate student-athlete resilience because developing student-athlete resilience cannot be accomplished in a single program

Interestingly, no significant increases in resilience were found following the completion of the program or first semester in college. Our findings emphasize that resilience is complex and its development is influenced by both the individual and their environment (Taylor, 2019). While there is value in crating programming that explicitly focuses on the individual and developing their resilience (Fletcher & Sarkar, 2016), we cannot ignore factors in the environment that contribute to burnout or negative psychological outcomes. Ultimately, based on our findings, we agree that resilience training alone is an incomplete intervention (Taylor, 2019) and the program tenets should be emphasized throughout the student-athletes time at university.

Efforts for developing and maintaining resilience should not be limited to a single program like this. The resilience-based educational programming presented in this report should serve as one of many resources to support student-athletes in their psychological growth. To fully support student-athletes in their development of resilience, athletic departments must also focus on creating and maintaining an environment and developmental climate that supports the growth of resilience. This should embody a challenge culture where pressure is viewed as an opportunity to perform and grow (Fletcher & Sarkar, 2016) with resilience development being on on-going endeavor. While strength-based explicit training emphasizes factors that promote success, they often overlook factors contributing to failure (Taylor, 2019). Throughout their student-athlete lifespan, student-athletes should be provided continued opportunities to reflect on their psychological growth and appraisal of challenging experiences as the experience them.

To achieve this environment, it is first important for athletic departments to create resources and have them available for support staff (i.e., coaches, academic support staff) to reinforce the basic tenets of how resilience can be developed and critically reflect on practices that may create debilitating environmental conditions (i.e., threat culture where pressure evokes a fear of failure or controlling coaching behaviors that command an athlete-dominant identity, Fletcher & Sarkar, 2016). We recommend that coaches and support staff are provided copies of the facilitator handbook and educated on the specific resilience-based knowledge and skills that student-athletes are learning. Second, it would be optimal for student-athletes to have periodic 'booster' resilience education and regular interactions with sport psychology support staff to continue to reflect on their resilience and growth. Ultimately, if these messages are then repeated and reinforced regularly for student-athletes, they will be embedded in a culture that implicitly develops resilience for athletics, academics, and all areas of life (Pierce et al., 2017).

4. Tailor educational programming to your student-athletes and your university

It was promising that the student-athletes who participated in our program maintained a high level of resilience throughout their first semester and maintained the belief that they effectively transferred resilience from sport to other life domains. We contend that the contextually-specific nature of our programming contributed to these findings. In the focus-group interviews, student-athletes emphasized that hearing and learning from current student-athletes on their own teams at their own university was important in helping them learn how to think and act as a resilient student-athlete. Specifically, our programs deliberately adopted university specific names (i.e., Redbird Resilience and Bronco Resilience), incorporated university branding (e.g., logos and color-schemes), involved experts at each university (e.g., professors and CMPC's at each university) integrated athletic department staff sharing content and messages (e.g., sport psychologists), and had current student-athletes and peers of the participants share

personal stories and examples that directly communicated the course content (e.g., panel discussions and video interviews). We recommend that educational programs, while following an evidence-based curriculum, should be tailored to the specific student-athletes, their teams, their athletic department, and their university to gain a contextualized understanding of resilience and its behavioral manifestations.

5. Identify and empower champions to drive resilience and psychological development programming

With any psychosocial intervention, it is necessary to identify and understand the decision-makers and personnel who will influence the intervention and its success. In fact, program success is often dependent on identifying key opinion leaders as well as content-experts to effectively communicate information and create lasting environmental and individual behavior change (Fletcher & Sarkar, 2016). The effectiveness of resilience programming is dependent on the breadth and depth of commitment to the program from all levels (Fletcher & Sarkar, 2016), and we believe that the successful implementation of our resilience programs was possible because of the collaboration between athletic departments and content-experts within the same university. From a promotional perspective, at both the Redbird Resilience (Illinois State University) and Bronco Resilience (Boise State University), athletic directors and athletic academic support staff were invested in the success of the program and provided critical support to promote the importance of the programming to coaches and student-athletes. From a content perspective, the program was designed and created by professors at each university, two who hold Certified Mental Performance Consultant (CMPC) credential through the Association for Applied Sport Psychology and a third with expertise in the content areas of the program. Both Dr. Martin and Dr. Pierce have dedicated their careers to teaching, conducting research, and consulting with student-athletes with a focus on psychological development of athletes for sport and life. Student-athlete resilience and psychological development is a complex endeavor, and for this reason, athletic departments should identify experts at their universities and seek their support to create and implement content-specific educational programming for studentathletes.

6. Promote active and collaborative learning experiences in face-to-face and online programs

A primary purpose of our project was to assess the efficacy and effectiveness of in-person, face-to-face and online educational programming for student-athletes. Our program evaluation found few differences in psychological outcomes between student-athletes in each modality, implying that both in-person and online programming are viewed by student-athletes as being beneficial for their psychosocial growth, maintaining resilience, and shaping balanced student-athlete identities. It was notable, however, that the in-person program was viewed to be slightly more beneficial for student-athletes than the online program. Based on focus-group interviews, we contend that the collaborative and active learning environment in the classroom provided unique and valuable opportunities for student-athletes to interact with each other, thus supporting their psychosocial growth. For this reason, we recommend that collaborative student-athlete discussions and problem-solving should be prioritized in these programs to help participants openly share their experiences and perspectives and subsequently learn from each other.

Interestingly, the majority of student-athletes who participated in the face-to-face workshops would prefer to receive this education in-person, while the majority of student-athletes who participated in the online workshops would prefer to receive this education online. Subsequently, with few differences in the effectiveness of the program modality, the decision on whether to implement in-person versus online programming should be based on student-athlete needs and educator expertise. Our in-person Bronco Resilience program was facilitated by a university professor with extensive training in college-level teaching and collaborative learning environments, while our online Redbird Resilience program was

facilitated by a university professor with extensive training in online education and experience developing and implementing interactive web-based student-athlete programming. For athletic departments implementing this program, the skills and expertise of the educator should be considered in the decision-making of program modality. Similarly, student-athlete scheduling and preferences should be considered to promote this program as a strengths-based skill development tool that they can choose to complete rather than a mandated training that is enforced upon them.

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