Researchers suggest that optimistic individuals approach life situations with the belief that outcomes will be favorable, and are more likely to exhibit better coping mechanisms when dealing with adversity and stress (Carver, & Scheier, 1987; Karadeaus, Karvelis, Argyropoulou, 2007). Moreover, the cognitive adaptation theory suggests that optimistic individuals are more likely to make appropriate cognitive adaptations to stressful situations (Lightsey, 1994; Alloy & Clements, 1992). Results concerning collegiate athletic status, gender, optimism, and stress are mixed. The purpose of this study was to compare collegiate athletes and non athletes and gender on optimism and life stress. The present study utilized the Life Orientation Test-Revised to optimism and the Undergraduate Stress Questionnaire to measure life stress. Results from this study support the hypotheses that 1) high-level optimistic athletes would experience significantly lower levels of life stress than low-level optimistic athletes; 2) high-level optimistic athletes would experience significantly lower levels of life stress than high-level optimistic non-athletes; and 3) high-level optimistic men would experience significantly lower levels of life stress than high-level optimistic women within the sample Future research about optimism and stress levels, athletic status, and gender is included within the discussion.
**Introduction**

Research is plentiful in linking optimists with positivity and pessimists with negativity. Optimistic individuals have been cataloged as having positive expectations for life, and believe that the future will hold favorable outcomes. In comparison, pessimists focus on a more negative perception towards life and see the future as unfavorable (Carver, & Scheier, 1987). Furthermore, optimism and pessimism have been defined by Dember, Helton, Matthews, and Warm (1999) as a disposition inclining one to positive expectations and pessimism as inclining one to negative expectations. Optimistic and pessimistic dimensions have further been investigated in determining success in achievement situations (Czech, Burke, Hardy, & Joyner, 2002). Dispositional optimism has been associated with generalized expectancies and is defined by whether individuals see future outcomes as good or bad (Huan, Yeo, Ang, & Chong, 2006).

Peterson and Bossio (1991) concluded that optimists are more self-confident and have higher levels of self-efficacy in their ability to perform well and achieve goals. Chang (1998) also provides us with knowledge concerning the benefits of optimism, which include lower levels of stress and lower trait anxiety. Chang’s (1998) findings support Beck’s (1967) cognitive therapy model. This cognitive therapy model highlights the roles of optimism and pessimism on psychological distress (Chang, 1998). In reference to athletes, Seligman et al. (1990) studied varsity swimmers and highlighted that:

“(1) Swimmer’s with a pessimistic explanatory style were more likely to go on to perform below expectations during the season than swimmers with an optimistic explanatory style; (2) After a simulated defeat, swimmers with a pessimistic explanatory style showed deteriorated performance, whereas swimmers with an optimistic style did not; (3) Explanatory style predicted performance by the swimmer even after coaches’ judgments of ability to come back was taken into account” (Seligman, Nolan-Hoeksema Thornton, & Thornton, 1990, p.145).

Therefore, optimism appears to aid performance, whereas pessimism is likely to decrease performance. Research has also reported that pessimistic adults have been shown to experience more depressive symptoms than the more optimistic adults (Bromberger & Matthews, 1996).

The benefits of optimism include increased motivation, and superior achievement in various domains (Schulman, 1999). Optimists will differ in their approach to life and perceptions of difficult situations. The optimist is more likely to see adversity as a challenge, to have the ability to create opportunities and find solutions from initial problems, give more effort to improve skills, maintain levels of confidence and persistence, as well as having the ability to rebound quickly after a setback (Schulman, 1999). It has been theorized that if an individual has the perception that they are capable of completing a task successfully then he/she is more likely to maintain his/her levels of effort and commitment to the activity (Scheier & Carver, 1987). Thus suggesting that those who recognize a situation as unattainable find that they struggle to continue with maintaining their level of effort, and this may in turn cause a stress response.

Optimism has previously been stated as a vital factor in an individual’s ability to adjust in aversive conditions (Karadeaus, Karvelis, & Argyropoulou, 2007). Taylor (1983) illustrates how positive self-relevant distortions can aid in coping with difficult situations by theorizing that individuals experiencing chronic illness can in fact positively change their perceptions, which...
allows them to adapt successfully to their situation. The concept of cognitive adaptations was initially referred to in terms of adaptations made when chronic illness was experienced, however Taylor and Brown (1988) have developed this concept to state that optimism, perceived control, and positive self-perceptions accumulatively coined as “positive illusions” can promote well being and can positively influence mental health. To explain this further the Motivational Model of Cognitive Adaptation has been developed. This model contributes the theory that having self-determined motivation will be most beneficial for mental health, and those who are most likely to foster this self-determined motivation are those who believe they have control over their lives, those who think well of themselves, and those who see the future as optimistic (Ratelle, Vallerand, Chantal, & Provencher, 2004).

Optimistic students have been proven to have better coping mechanisms to deal with stress related to academics than the more pessimistic students (Huan, Yeo, Ang, & Chong, 2006). Research has shown that stress occurs in sport when athletes have to deal with life situations that they perceive as exceeding their abilities and that threaten their chances of achieving their goals (Santomier, 1983). Research has identified several factors that are attributed to success and achievement in sport and athletics, as well as optimism-pessimism levels being attributed to levels of success in sport and business. To relate the mentioned research to this study, we can begin to hypothesize that stress may be influential on levels of optimism in terms of collegiate athletes and non-athletes.

Research has identified that in adult populations there are various cognitive factors that may interact with stress levels (Ingram, Miranda, & Segal, 1998). It has further been concluded that positive automatic thoughts can aid in reducing stress levels in adults and the psychological symptoms that can potentially follow (Lightsey, 1994; Alloy, & Clements, 1992). Various studies have investigated the interaction between optimism levels and stress, for example Bromberger and Matthews (1996) were able to predict depressive symptoms from optimism-pessimism and stress variables. It has further been theorized that the negative outcomes associated with pessimism can increase the influence of stress on an individual’s ability to adjust in a stressful situation (i.e. the life of a collegiate athlete) (Chang, 2002).

There have been numerous definitions suggested for stress, however the most agreed upon statement is that stress is a physical, mental, or emotional reaction that occurs as a response to environmental tensions, conflicts, or pressures (Fontana & Abouserie, 1993). More specifically life stress has been defined as a state of psychobiological arousal produced by interactions between situational and psychosocial factors, which play an influential role on well-being and performance (Felston & Wilcox, 1993). Interrelated with stress is cognitive appraisal, which has been defined by Folkman, Lazarus, Dunkel-Scheffer, DeLongis, and Gruen (1986) as “a process through which the person evaluates whether a particular encounter with the environment is relevant to his or her well being, and if so, in what ways” (p.992). So in terms of college students and collegiate athletes this suggests that the process by which these students experience stress is their evaluation of their life/environmental situation. Noblet and Gifford (2002) provide some examples of stressors experienced by athletes including; performance problems such as self-doubts and team selection, environmental problems such as financial costs and practice time, organizational problems such as coaching, leadership, and communication; as well as problematic relationships and experiences outside of their sport.

A greater number of stressful life events have been correlated with higher education, suggesting that college students are more likely to experience stressful life changes than those individuals of the same age who have begun their careers (Crandall, Preisler, & Aussprung, 1993).
It was theorized by Felston and Wilcox (1993) that life stress and sport-specific competitive anxiety may be influential in many sports. Intense anxiety develops in students from stress, associated with high expectations in academics and sporting performance, as well as being related to social factors (Abouserie, 1994; Akgun & Ciarrochi, 2003). Furthermore, western nations, in particular the United States, place a huge emphasis on the importance of sport and success in sport, to be victorious is perceived to be of the utmost importance thus creating additional stressors (Santomier, 1983).

Young people have to persevere with college life, and those who participate in collegiate athletics live extremely demanding lifestyles particularly for that age. Ingham (1975) theorized with reference to his performance principle, that this focus on performance and success in sport places increased demands on athletes. For college student-athletes there are additional factors that may be perceived as further stressors. The intense academic and social pressures experienced by collegiate athletes for example may increase vulnerability to developing clinical symptoms (Striegel-Moore, Silberstein, Frensch, Rodin, 1989). Santomier (1983) provides the following contributions as to reasons why sport can produce a stress reaction, “disrupting or endangering one’s important goals and values, creating uncertainty about one’s physical survival, threatening the maintenance of one’s identity, and affecting the ability to control one’s environment” (p.58)

Research concerning gender on the topic of optimism and stress has had mixed results. A study performed in China investigating stress levels, and optimism, and pessimism in university students concluded that optimism and pessimism play different roles in terms of predicting depression. They also concluded that optimism as a protective construct plays a more vital role in students experiencing higher levels of stress and that pessimistic males with higher levels of stress tend to experience more destructive effects from their pessimistic tendencies (Tao, 2006). Another study performed by Boman, Smith, and Curtis (2003) concluded that there were no differences in dispositional optimism levels between men and women however, low optimistic men did report greater levels of school hostility. Men have also been found to be more optimistic when predicting grades than women (Delap, 1994). Another example of research reported that men had greater optimistic tendencies than women when the independent variable was judgments of driving abilities (Dejoy, 1992). Williams (1980) concluded that women athletes are more independent, achievement orientated, emotionally stable, aggressive, and assertive compared to women non-athletes.

When comparing athletes to non-athletes research has shown that when investigated specifically by types of sport personality differences are found. There have been mixed results regarding personality constructs and athletic status. A study by Schurr, Ashley, and Joy (1977) concluded that team sport athletes in comparison to non-athletes reported less ego strength, more dependency, less abstract reasoning, and more extroversion. The same study showed that athletes playing individual sports when compared to non-athletes showed more dependency, less anxiety, higher objectivity, and less abstract thinking (Schurr, Ashley, & Joy, 1977). A recent research study involving collegiate athletes and non-athlete samples found no significant differences when investigating optimism levels in first-year and final-year athletes and non-athletes, but did report that final-year athletes showed higher levels of optimism than first-year athletes (Venne, Laguna, Walk, Ravizza, 2006).

Optimism and pessimism have previously been correlated with stress, noting that there are differences in the coping strategies in optimists and pessimists (Czech, Burke, Joyner, & Hardy, 1998). A study performed by Scheier, Weintrab, and Carver (1986) supported this notion,
concluding that their results showed optimists to correlate positively with positive reinterpretation as a coping mechanism for difficult or challenging situations. Research has also previously been stated as lacking when concerned with whether athletes do or do not experience varying levels of stress compared to non-athletes (Felston, & Wilcox, 1993).

The proposed research was designed to examine and compare optimism, and stress levels among undergraduate NCAA Division I collegiate athletes and non-athletes. The study also made comparisons between high-level optimists and low-level optimists, and men and women within the sample. A growing body of knowledge is developing on stress, personality constructs, and collegiate athletes. Such research could provide vital information for athletic advisors working to mentor college athletes as well as coaches and sport psychology consultants to reduce stress levels in athletes that may affect performance levels. It will also be hoped that people can recognize the benefits of optimism, and being an athlete and competing and participating in sport and physical activity.

With this information the following research questions have been proposed; A)“Do high-level optimists differ significantly from low-level optimists in life stress scores in collegiate athletes within the sample?” B) “Do high-level optimistic athletes have lower levels of life stress than high-level optimistic non-athletes within the sample?” and C) “Do high-level optimistic men have significantly lower levels of life stress than high-level optimistic women within the sample?” These research questions allow for the following hypotheses to be stated; 1) High-level optimistic athletes will have significantly lower levels of life stress than low-level optimistic athletes within the sample; 2) High-level optimistic athletes will have significantly lower levels of life stress than high-level optimistic non-athletes within the sample; 3) High-level optimistic men will have significantly lower levels of life stress than high-level optimistic women within the sample.

Methodology

Participants

This study involved a total of 332 NCAA Division I University participants including, non-athletes (N=155) 46.7% and athletes (N=177) 53.3%. From this population 64.8% were men (N = 215) and 35.2% were women (N = 117) were involved. Participants were included from all four undergraduate school classifications, freshmen (N=111) 33.4%, sophomores (N=87) 26.2%, juniors (N=100) 30.1%, and seniors (N=34) 10.2%. The age of the participants ranged between 18 and 23 with the most frequently recorded ages being 19 (N=96) 28.9% and 20 (N=91) 27.4%. A convenience sample was utilized. The athletes participating in this study participated in 13 different sports, the most frequently represented sports were; baseball (N=45) 25.4%, men’s and women’s soccer (N= 39) 22%, football (N=35) 19.8%, men’s and women’s tennis (N=31) 17.5%. The non-athletes from the NCAA Division I universities in the southeastern region of the United States were recruited from undergraduate classes.

Instrumentation

The Life Orientation Test-Revised (LOT-R) (Scheier, Carver, & Bridges, 1994) was used to measure optimism and the Undergraduate Stress Questionnaire (Crandall, Preisler, & Aussprung, 1992) was utilized to measure stress in undergraduates. A personal statement
questionnaire was included in the packet to gain information on demographics including age, gender, school classification, and type of sport played at the collegiate level.

**Dispositional Optimism.** The original design of the LOT-R was unidimensional; however more recent research concerning optimism and pessimism has suggested that in fact optimism and pessimism are independent variables (Hummer, Dember, Melton, Howe, & Schefft, 1992). Thus this study will utilize the LOT-R by producing an overall score for optimism. The original test-retest reliability for the Life Orientation Test-Revised (LOT-R) has been shown as follows: $r = .68$, for a 4 week period, $r = .60$, for a 12 month period, $r = .56$, for a 24 month period, and $r = .79$, for a 28 month period. Using Cronbach’s alpha = .78 for internal reliability, and the test-retest reliability have been shown to be at adequate levels, in particular for the unidimensional scoring. Reliability for the Life Orientation Test-Revised was gained, and shown to be .754.

The design of the LOT-R incorporates 3 types of questions. These include 4 items that are not scored, 3 positive statements, and 3 negative statements. An example of a statement may be, “I’m always optimistic about my future.” The subjects must respond to the statements by choosing their appropriate response using a Likert scale, with 5 possible choices. The scale ranges from “strongly agree” to “strongly disagree”.

**Life Stress.** Stress in undergraduate college students was measured using the Undergraduate Stress Questionnaire (USQ) (Crandall, Preisler, & Aussprung, 1992). The USQ is an 82 item checklist based on life events that undergraduate students have experienced within the last 2 weeks in the last semester, totaling up to give one final score of level of life stress (Powers, Cramer, & Grubka, 2007).

The USQ has been shown to have split-half reliability (.71) and with the use of the Spearman-Brown method the reliability is shown at .83 (Crandall, Preisler, & Aussprung, 1992). Internal consistency and test-retest reliability has also been proven to be acceptable for the USQ (Powers, Cramer, & Grubka, 2007), and it has further been shown to correlate negatively with mood, and positively with physical symptoms (Crandall, Preisler, & Aussprung, 1992).

**Procedure**

The meeting location was arranged at a southeastern NCAA Division I university either prior to a practice or weight lifting session, or following a practice or weight lifting session. The non-athletes were approached at the beginning of classes taught at a southeastern NCAA Division I university. Participants were informed that if they are under the age of 18 then their parents must be present to sign a separate consent paper. To ensure no interference between participants, all subjects were separated. The researcher ensured silence was maintained in the room and gave an explanation of the procedure prior to the questionnaires (the demographics, the LOT-R, and the USQ) being given out to the subjects. The participants were briefed on the purpose of the study then the informed consent forms were read, and any questions answered before the subjects were asked to sign the informed consent form. It was explained that participation would be confidential and that no data will be associated with any individual. Participants were then asked to complete the forms to the best of their ability. The order that they were asked to fill them out was as follows: Demographic questionnaire, the LOT-R (Scheier, Carver, & Bridges, 1994), and The USQ (Crandall, Preisler, Aussprung, 1992).
were asked to answer all questions truthfully and to the best of their ability. Once all inventories were completed, the researchers informed the participants that if they wished to view their individual results they may mark the front page of their package.

Participants were also recruited through use of an online survey. The survey was set to only allow those invited to take the survey within the required population for the study (athletes and non-athletes from NCAA Division I universities in the southeastern region of the United States). The participants were recruited by e-mailing contact persons who had interaction with Division I athletes at southeastern universities in the United States. The e-mail was kept brief including a short explanation of the study, how long the survey would take (5 minutes), the link for the survey, and contact information in the case of questions arising. A copy of the passive consent form was also attached to the e-mail file. All results were printed before being stored in a secure room. The completed inventories were scored and kept in a private and secure room in a private locked cabinet.

**Statistical Analysis**

The data analysis for this study entailed two stages: 1) a descriptive analysis, and 2) three independent t-tests. All data analysis was conducted using the SPSS computer program. Included in the descriptive analysis were the means, standard deviation ranges, and as a function of gender, athletic status, and level of optimism. The high-level and low-level optimist groups were delineated by thirds. The top 33% of the LOT-R scores were considered high-level optimists within the sample, and the lowest 33% of the LOT-R scores were considered low-level optimists within the sample. These cut points differ between the three independent t-tests that were run. Three 1-tailed independent t-tests were utilized to measure differences between high-level and low-level optimists, high-level optimism and athletic status, and high-level optimism and gender. To control for possible Type I errors in the statistical analysis the Bonferroni adjustment technique was utilized to adjust the alpha level to p<.016.

**Results**

Given that three independent t-tests were to be performed on samples from the same population the Bonferroni adjustment technique was utilized resulting in an alpha level of .016. Both results from the LOT-R and the USQ were not normally distributed, both violating the assumption of normal skewness. The LOT-R was significantly negatively skewed, whereas the USQ was significantly positively skewed. Both variables were within the normal range and recognized as mesokurtic.

Table 1 displays the means and standard deviations for high-level optimistic athletes and low-level optimistic athletes on life stress. High-level optimistic athletes operationalized as the top 33% of scores on the LOT-R (n = 60) whereas low-level optimistic athletes were the lowest 33% of scores (n = 55). An independent t-test revealed a significant difference (p < .016) between high and low optimistic athletes on levels of life stress. Thus high-level optimistic athletes reported significantly lower levels of life stress than low-level optimistic athletes.

Table 1 displays the means and standard deviations for high-level optimistic athletes and high-level optimistic non-athletes (n = 128) on life stress. High-level optimistic athletes (n = 60) and high-level optimistic non-athletes (n = 68) were operationalized as the top 33% of scores on the LOT-R for each respective category. An independent t-test revealed a significant difference
(p < .016) between high-level optimistic athletes and high-level optimistic non-athletes on levels of life stress. Thus high-level optimistic athletes reported significantly lower levels of life stress than high-level optimistic non-athletes.

Table 1 displays the means and standard deviations for high-level optimistic women and high-level optimistic men (n=126). High-level optimistic women (n=45), and high-level optimistic men (n=81) were operationalized as the top 33% of scores on the LOT-R for each respective category. An independent t-test revealed a significant difference (p<.016) between high optimistic men and high optimistic women on levels of life stress. Thus high-level optimistic men reported significantly lower levels of life stress than high-level optimistic women.

Table 1 - Mean Undergraduate Stress Questionnaire Scores Results

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean USQ Score</th>
<th>Standard Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>High-level Optimistic Athletes</td>
<td>60</td>
<td>19.17</td>
<td>10.83</td>
<td>1.40</td>
</tr>
<tr>
<td>Low-level Optimistic Athletes</td>
<td>55</td>
<td>*25.13</td>
<td>12.30</td>
<td>1.66</td>
</tr>
<tr>
<td>High-level Optimistic Non-Athletes</td>
<td>68</td>
<td>*24.69</td>
<td>11.23</td>
<td>1.37</td>
</tr>
<tr>
<td>High-level Optimistic Males</td>
<td>81</td>
<td>20.32</td>
<td>11.27</td>
<td>1.25</td>
</tr>
<tr>
<td>High-level Optimistic Females</td>
<td>45</td>
<td>*25.84</td>
<td>11.74</td>
<td>1.75</td>
</tr>
</tbody>
</table>

*Significantly different at the .016 level

Discussion

The results from this study support the hypotheses that 1) high-level optimistic athletes would experience significantly lower levels of life stress than low-level optimistic athletes; 2) high-level optimistic athletes would experience significantly lower levels of life stress than high-level optimistic non-athletes; and 3) high-level optimistic men would experience significantly lower levels of life stress than high-level optimistic women within the sample.
In reference to Hypothesis I, research shows that those higher in optimism levels report less frequencies of psychological health problems when compared to individuals with lower levels of optimism (Pritchard, Wilson, Yamnitz, 2007). African-American college students displaying higher levels of optimism have been correlated with lower perceived stress levels (Baldwin, Chambliss, & Towler, 2003). Chang and Sanna (2003) found a significant negative association between optimism levels and life stress in an adult population. This is in agreement with Scheier and Carver’s (1988) study, which showed that optimism aided students in their abilities to deal with stress related to college and that when students reported themselves as optimistic at the beginning of a semester they were more likely to deal with adversity and stressful situations effectively later in the semester. A recent research study involving collegiate athlete and non-athlete samples found no significant differences when investigating optimism levels in first-year and final-year athletes and non-athletes in those respective year groups, but did report that final-year athletes showed higher levels of optimism than first-year athletes (Venne, Laguna, Walk, Ravizza, 2006). Aspinwall and Taylor (1992) concluded that those higher in optimism adjust more successfully to the transition of high school to college and stressful life events. As discussed by Seligman (1998) optimism can be learned, which may begin to explain these results comparing first and final-year collegiate athletes.

In terms of reasoning why high-level optimistic collegiate athletes may experience lower levels of life stress than low-level optimistic athletes we can refer to research on the more effective coping mechanisms displayed by those higher in optimism. Karademas, Karvelis, Argyropoulou (2007) investigated stress-related predictors of optimism in individuals who survived breast cancer, they highlighted that coping was associated with stress, and that higher levels of optimism were strongly correlated with effective adjustment to stressful situations. Jackson, Weiss, and Lundquist (2000) proceed to suggest that it is not just the case that those higher in optimism levels will see the future as more favorable but also that they could be more likely to differ in their behaviors when compared to low-level optimists when adjusting to stressful situations. Jackson et al. (2000) found this difference in behavior to be that the more optimistic college students “were less inclined to delay or avoid tasks and were more likely to persevere in the face of aversive tasks.” In reference to the cognitive adaptation theory Taylor and Brown (1988) theorized that by positively changing perceptions of situations and making the appropriate cognitive adaptations it allows for effective coping. Moreover those who are more optimistic have better abilities to adjust to adversity (Karadeaus, Karvelis, Argyropoulou, 2007), and those with greater levels of “positive illusions” (optimism, perceived control, and positive self-perceptions) benefit in terms of general well-being and in their abilities to cope with chronic illness (Taylor & Brown, 1988). Thus providing us with reasoning as to how high levels of optimism may have a beneficial influence in coping with the adversity and stressful situations that collegiate athletes experience on a day-to-day basis.

In regards to Hypothesis II, when investigating collegiate sport as a leisure activity, Kimball and Freysinger (2003) concluded that participation in sport at the collegiate level was perceived by some as a stressful situation, and by others as a buffer against stress. In their qualitative study they were able to gain evidence from collegiate athletes that participation in collegiate sport allowed them to develop a social support network, personal identification, and a connection with others who had common interests and life experiences (Kimball, and Freysinger, 2003). Four buffers have previously been identified by Wheeler and Frank (1988) to be influential against the adverse effects of stress on health, these buffers included; leisure activity, exercise pattern, sense of purpose, and sense of competence.
In terms of athletic status and how it affects optimism and life stress, from the results of this study we can see that being a collegiate Division I athlete results in lower levels of life stress, but how? At this point it could be speculated that athletes at the collegiate level have had to manage their time throughout their childhood much more than children who invest time into a hobby/activity. Given this assumption, there is the possibility that athletes have had to learn coping skills earlier in life than their non-athlete counterparts. Aspinwall and Taylor (1997) put forth the concept that by developing proactive coping skills it allows individuals to not only prepare for stressors, but to also have the ability to anticipate them. Furthermore participation in regular physical activity has been shown to result in lower levels of stress, diabetes, and depression (International Society of Sport Psychology, 1992). In agreement with this it has been proposed that participation in sport and recreation from an early age and throughout childhood is beneficial from both a mental and physical standpoint, including better self-esteem and body image (Miller & Levy, 1996; Ryska, 2002; Storch et. al., 2005). As suggested by Czech et. al (2002) it may be that the majority of athletes have rigorous work ethics and no fear of failure and therefore have high achievement levels compared to non-athletes.

Hypothesis III stated that high-level optimistic men will experience significantly lower levels of life stress than high-level optimistic women within the sample. The significant differences found in this study between high-level optimistic men and high optimistic women do not coincide with the results comparing men and women collegiate athletes at the Division I level studied by Czech, Burke, Hardy, and Joyner (2002). Their results showed no significant differences when investigating gender not only in optimism and pessimism levels, but also competitiveness, goal orientation, and bipolar optimism/pessimism (Czech, Burke, Hardy, Joyner, 2002).

The vital issue to be acknowledged when discussing gender and sport is the history of women’s participation in sport. As highlighted by Veri (1999), the traditional socialization of participation in sport suggests an association between the sporting “norm” and masculinity, in which women participating in sport at a high level may be looked upon as conflicting with their traditional feminine role. Kimball and Freysinger (2003) associate with this social construct in their conclusions that both gender and race are influential in shaping the levels of stress experienced by collegiate athletes.

In discussing the role of gender in sport and the role of optimism, it is also important to identify with the influence of media. The media is renowned for its ability to manipulate societal issues, and despite successful women being recognized as attractive by men, women in sport and their achievements are still trivialized (Kimball, & Freysinger, 2003). Research has also identified that the differences in socialization patterns related to sport participation and gender begin early in childhood, parents are more likely to encourage participation in sport in boys than girls, and throughout childhood and adolescence boys are more likely to participate in sport and be physically active (Coakley, 2007).

The societal issues surrounding gender and sport, and the lengthy process of alleviating societal stereotyping help bring about the discussion of life stress and why female collegiate athletes may experience greater levels of life stress than their male counterparts.

Recent research has shown significant differences in life stress levels between men and women collegiate athletes at the Division II level (Tinsley, 2007). In Kimball and Freysinger’s (2003) qualitative study of collegiate sport and stress they found that only the women collegiate athletes that they interviewed stated that participation in collegiate sport was a stressor. The reasons given for the additional stress experienced by the women athletes was the lack of control.
over the perceptions others had of them, in particular being viewed as masculine and lacking confidence about their bodies (Kimball, & Freysinger, 2003). In contrast, a study involving an adolescent population found that gender did not predict academic stress specifically, nor was there a two-way interaction between the optimism and gender variables, despite finding a significant negative relationship between optimism and academic stress over the general population (Huan, Yeo, Ang, & Chong, 2006). This provides an opportunity for different stressors and optimism to be investigated in the collegiate athlete population in future research studies.

When testing the overall LOT-R and USQ mean scores we can conclude that there were not significant differences between athletes and non-athletes suggesting that by investigating optimism and pessimism in the upper and lower 33% of scores we are identifying that there is a relationship between life stress and optimism levels.

The significant results allows for an analysis of the practical applications that can potentially be introduced providing a purpose to the study. How can we benefit from these results, and who can benefit from these results? First, collegiate coaches can utilize these results as a reason to be self-aware of their coaching style/techniques, to recognize the pressures they may put on their athletes, and to understand that their athletes are all individuals. The results could also suggest that coaches should be mindful of how different individual athletes cope and deal with stressful situations, from sources such as their sporting environment, their home life, and their education. The reasoning behind this being that significant differences were found between high-level optimistic and low-level optimistic collegiate athletes in levels of life stress, and low optimism levels have been associated with less effective coping skills. Coaches may want to take these results into consideration and ensure they understand their athlete’s levels of optimism as individuals. Perhaps coaches may want to give their athletes opportunities to meet and discuss how they are coping on a regular basis, ensure that they provide their athletes with days off to aid in time management, and utilize the services of sport psychology consultants.

An effective working relationship between coach and sport psychology consultant has the potential to benefit the student-athlete. The sport psychology consultant can educate student-athletes on their ability to learn optimism as theorized by Seligman (1998) as well as teaching skills such as stress management, time management, and effective communication skills. Whether it is the student-athletes coping differently with life stress or perceiving stress differently, an effective understanding between the coach and sport psychology consultant can play an important role in aiding those who are more vulnerable to increased stress levels. This knowledge can provide the opportunity for intervention as well as providing student-athletes with a stable support staff.

Student-athletes can give these results practical significance by increasing their self-awareness of their ability to be optimistic when coping with different aspects of their life as a student-athlete, as well as the levels of stress that they experience from stressors in their lives. By increasing their self-awareness of these variables and by recognizing the adverse effects of high levels of stress and low levels of optimism from research such as this study, the student-athlete may be more mindful of communicating with their coaching staff and sport psychology consultant more effectively. Thus, these three populations (coach, sport psychology consultant, and athlete) can potentially play an optimal role as part of the collegiate athletic team to prevent student-athletes suffering from low optimism, poor coping skills, and high stress levels.

Limitations that became apparent throughout this research process include factors such as the use of online surveys. The online method was utilized to gain the required number of athletes...
for sufficient power, again recruited from NCAA Division I southeastern universities. However, compared to the entire data pool for non-athletes being from one NCAA Division I southeastern university this would be considered a limitation due to the varying ease of collecting this data. Ideally both groups of participants would be would gain from the same group of NCAA Division I southeastern universities. Another limitation to mention was the difference in numbers when analyzing the high-level optimistic male (n=81) and high-level optimistic female (n=45) populations, and maybe a factor to consider in terms of sufficient data for power for each population to be tested.

Another factor to consider if this study was to be performed on a grander scale would be the validity of utilizing the top 33% and lower 33% of the populations being analyzed in terms of their level of optimism to determine whether they were a high or low-level optimist. Despite Scheier, Carver, and Bridges (1994) developing the LOT-R as unidimensional, there has been factor analyses performed on the LOT suggesting that optimism and pessimism may in fact be independent of one another (Hummer, Dember, Melton, & Scheff, 1992). Further research could investigate valid and reliable cut-points for the LOT-R scale when used as a bipolar scale. This would open up further opportunity for research into the use of the LOT-R. Whalen et al. (2007) investigated conceptualizing the LOT-R in a sport specific manner, concluding that the conceptualized LOT-R in terms of the sport played can potentially provide better predictive validity than the original LOT-R, and this may also be something to be considered in future research.

Future research in terms of optimism involving longitudinal designs may also be an interesting path to explore. This study amongst others, reports results that show how higher levels of optimism can be beneficial to different aspects of life, in particular buffering stress levels. What may be of interest in this field is whether an optimism intervention can be implemented at the high school or collegiate level. Such a design could ultimately investigate the effectiveness of learned optimism and implementation of a direct intervention within the sporting environment.

Another suggestion for further research may be to investigate the causal direction of the relationship between optimism levels and life stress. It would be interesting to examine out whether it is high optimism levels that prevent high stress levels, or whether high levels of stress lead to lower levels of optimism, or in fact that it is a bidirectional relationship. The study has potential to be replicated on a larger scale across the United States and even be developed into a cross-cultural study taking into consideration the lack of collegiate sports internationally and the possible opportunity to expand to professional athletes.

Although it is not very common, there is the likelihood that a small number of collegiate athletes do not develop a social support network from their team and participation in their sport. These athletes may also feel a sense of missing out on other social activities in the collegiate setting, and may therefore perceive their involvement in their sport as a stressor (Kimball and Freysinger, 2003). Lavallee, Grove, and Gordon (1997) further suggest that student-athletes when compared to non-athletes show higher levels of anxiety in regard to career paths. However, today with staff members such as tutors for student-athletes, life skills coordinators, and academic advisors employed specifically for our student-athlete populations perhaps we provide an opportunity for such stressors to be reduced in the student-athlete population. This is all very interesting, however there needs to be more research done in order to further delve into the reasons why this may be the case. Although this is not in accordance with the results, it is important to research when looking at this specific population of student athletes.
Finally, one last avenue for future research could be to investigate what role the pressure of financial stability, in terms of scholarship funding, has on the student athlete. The factor of scholarship funding in terms of the collegiate athlete may also be influential in life stress levels (Amorose & Horn, 2000). Financial stability plays a key role in stress levels within most populations. Those student-athletes with minimal financial support from sports scholarships may experience an additional stress from this source that perhaps others with higher levels of financial support do not have to cope with.

In conclusion, the evidence gained from this study has allowed several populations to be identified as more susceptible to higher levels of life stress when associating with optimism levels in collegiate and non-collegiate athletes. Those who are lower in optimism levels, those who are not collegiate athletes and those athletes that are women have proved to be more susceptible to higher levels of life stress when compared to those who are higher in optimism levels, those who are collegiate athletes and those that are men in the Division I college setting. In agreement with Chang and Sanna’s (2003) remarks, that there is still a need for further research in this topic area in different populations concerning how optimism and pessimism are associated with physical and psychological adjustments. In particular, populations in which stress and the adjustments to stressors may be vital in the success of those individuals in respect to aspects of life such as education, sport, and the workplace.

References


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Tao, S. Optimism, pessimism, and depression; The relations and differences by stress level and gender. *Acta Psychologica Sinica, 38*(6), 886-901.


