PERCEPTIONS OF INJUSTICE AMONG INTERCOLLEGIATE ATHLETES: EFFECTS OF RESPONSE TYPE ON INDIVIDUAL WELL-BEING AND PERCEIVED TEAM COHESION

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ABSTRACT

When individuals perceive the relationship between what they put into an exchange relationship to be unequal to the outcomes they receive, they are said to be in a state of inequity. This perceived lack of fairness is often referred to as injustice and can have negative effects on the individual and team. Currently, there have been few theory-based approaches to exploring perceptions of injustice within an athletic context. In the present study, online surveys were completed by 78 student-athletes at regional universities to identify the specific types of injustice they perceived, the behavioral and cognitive responses to those perceptions, and the individual and team-related outcomes. Correlational and multiple regression analyses discovered that athletes experienced all forms of injustice, especially procedural, and were most likely to respond to those perceptions cognitively. When athletes did choose to respond behaviorally, this sample demonstrated negative effects to individual psychological health and social team cohesion.

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LIST OF ABBREVIATIONS

M, Mean

SD, Standard Deviation

ANOVA, Analysis of Variance

POJ, Perceived Overall Justice Scale

GEQ, Group Environment Questionnaire

COPSOQ II, Copenhagen Psychosocial Questionnaire

ATG, Attraction to the Group

ATG-S, Attraction to the Group – Social

ATG-T, Attraction to the Group – Task

GI, Group Integration

GI-S, Group Integration – Social

GI-T, Group Integration - Task

LIST OF SYMBOLS

α, Cronbach's alpha

B, Unstandardized beta

F, the ANOVA test statistic

M, Mean

N, Total number of cases (i.e., overall sample size)

SD, Standard deviation

t, Signal to noise ratio of departure of the estimated value to its standard error

p, Probability of observed signal to noise ratio due to random chance

CHAPTER I

INTRODUCTION

Most athletes have grown up their entire lives hearing the phrase “practice makes perfect”. Throughout their sports careers they were likely under the impression that the more effort they put into their sport, the more they would get out of their sport. However, most athletes realize at some point in their athletic career that this is not always the case. When the level of effort an athlete puts into their sport does not result in what they perceive to be equal outcomes, they may feel as if the decision itself, the information given regarding the decision, the process to arrive at that decision, or the way they were treated during the process, are unfair. Players may also evaluate their efforts and rewards in relation to another member on their team. If the effort that they are putting in is equal or greater than the effort of another player who receives a more favorable outcome, that player is likely to view the situation as unfair. All of these examples are illustrations of basic judgements of fairness or justice that have often been examined in organizational settings (Adams, 1965), but less so in athletics.

At the collegiate level, the experience an athlete has as a member of their team plays an important role in the overall student-athlete experience. Players who perceive any aspect of their team experience to be unjust may experience additional levels of stress or decreases in well-being in addition to the already stressful experience of being a student-athlete. The main goal of most sports teams, especially at the intercollegiate level, is to win. Perceptions of injustice by athletes may also affect a team’s ability to win, such as by affecting levels of team cohesiveness

(Turman, 2003). For these reasons, studying equity within athletic contexts is necessary to enhance the team's ability to succeed and support player well-being.

As early as 1958, researchers began to theorize about the topic of equity and fairness in regard to social interactions as well as transactions with institutions (Homans, 1958). While the foundational theories on the topic, specifically Social Exchange Theory (Homans, 1958), Equity Theory (Adams, 1965), and Organizational Justice Theory (Greenberg, 1994), can be applied to any form of social exchange, they are often applied within an organizational context. These theories, while not specifically established within the realm of sports, may still be applicable due to the fact that sports teams share many of the characteristics evident in other types of organizations (Chelladurai, 2001). In most situations, sports teams meet each of the three criteria identified by Bridges (2000) that must exist in order for a formal management structure to be established: (a) an established organization, (b) clearly defined goals/objectives, and (c) hierarchical structure (Jordan, Gillentine, & Hunt, 2004). Due to the parallels between organizations and athletic teams, the potential for investigating the application of organizational justice and equity theories within the area of athletics is immense. However, research has yet to confirm the applicability of specific components of these justice theories to the sports world, which was the main purpose of this study.

Within this chapter I first discuss the theoretical foundations for equity and justice. Then, I describe the four different forms of justice, as well as the theoretical behavioral and cognitive responses to perceptions of injustice that have been proposed in the literature. Lastly, the individual and team outcomes that may be affected by perceived injustice are addressed. The overall purpose of the study was to identify the forms of injustice perceived by players on intercollegiate athletic teams and determine the behavioral and cognitive responses to those

perceptions. Additionally, the study explored the outcomes of perceptions of injustice in regard to individual psychological well-being and perceptions of team cohesion. Finally, the study examined if the individual or team-related outcomes of perceived injustice are impacted by the type of athlete response.

Theories of Equity and Justice

The notion of weighing outputs as relative to inputs can be explained using Social Exchange Theory, developed by Homans (1958) to explain how individuals evaluate the costs and benefits associated with any given relationship or transaction. Adams (1965) expanded upon this theory to develop Equity Theory. Equity Theory describes a type of social exchange that focuses on how individuals determine the fairness (i.e. equity) of a situation. Inequity can exist for an individual whenever they perceive that the ratio of their outcomes to inputs and the ratio of another person's outcomes to inputs are unequal (Adams, 1965). Inputs represent those contributions that an individual brings into an exchange for which they expect a just return (Adams, 1965). Outcomes represent those things that individuals perceive they are receiving from the exchange and can be both tangible or intangible (i.e. psychological outcome; (Adams, 1965). While Equity Theory is often applied to work contexts, it can be applied to any social exchange since the basis behind Equity Theory is simply that a person brings to an exchange some form of input and they expect some form of outcome. In an organizational setting, one of the most common tangible outcomes is money, while praise from a supervisor would be an intangible output. In the context of a sports team, an athlete may offer their time in the form of practice and in return expect to receive the opportunity to play in a game. As Adams (1965) definition of inequity suggests, individuals cognitively relate their ratio of inputs to outputs to

some type of comparative standard. In the case of athletic teams, it may be another player on their team. If that player perceives the ratio to be equal to their teammate, a state of equity is said to exist and the player will usually be satisfied. If the ratio is not equal, a state of inequity is said to exist and the player is most likely not satisfied.

Forms of Justice

The work of Adams and Homans has laid a strong foundation for the study of equity and from this foundation other scholars began to expand upon their theories to propose and test various sub-classifications of justice in relation to multiple organizational contexts (Colquitt, 2001). This culmination of research has resulted in the creation of a commonly accepted four factor model of organizational justice that includes distributive, procedural, interpersonal, and informational justice (Colquitt, 2001). Colquitt (2001) summarized early work on justice and defined the four types in the following ways. Distributive justice is the perception of equity of one's outcomes. Procedural justice is the perceptions of equity with respect to the procedures used to determine outcomes. Interpersonal justice is how the individual is treated in terms of respect in the exchange relationship. Informational justice refers to whether the individual is receiving clear information about the decisions made and outcomes received.

Distributive Justice. Jordan et al. (2004) are among the very few researchers to have provided relevant examples of these forms of injustice by applying them to a sports context. In regard to distributive justice, Jordan et al. (2004) describe that the outcomes that players may receive could be playing time, responsibility (e.g. team captain), and assigned position (e.g. quarterback, starting or bench player) on the team. For example, an athlete may feel that, based on effort or contribution to the team, that they should be assigned a starting position or be a

captain. If the actual outputs received are not as expected, dissatisfaction on the part of the athlete is likely to occur. Further, if team members evaluate their individual outputs received and find them to be inconsistent with the outputs received by teammates, they are likely to become dissatisfied. This is especially true when an athlete feels as if their efforts and contributions exceed those of their teammates. Thus, perceptions of distributive justice are determined by the outputs received by the individual as well as those received by other members of the team.

Procedural Justice. According to Jordan et al. (2004), the process by which outputs are distributed to athletes can be just as important as what the outputs are (i.e. procedural justice). The policies and procedures used by coaches to make decisions influence whether athletes perceive they are being treated fairly. Even if an athlete is not completely satisfied with a specific output, the disappointment they experience can be lessened if they believe the processes used to arrive at that output were justified and fair (e.g. the role of a captain being based on a team vote; (McFarlin & Sweeney, 1992). Additionally, athletes are less likely to demonstrate negative attitudes and behaviors if they interpret the procedures as fair (e.g. resentment, unhappiness, & withdrawal; (Greenberg, 1994). Coaches play a big role in establishing the processes that determine the outputs received by athletes, and can lessen disappointment, negative feelings, and perceptions of injustice by ensuring that these processes are viewed fairly.

Interpersonal Justice. Jordan et al. (2004) continue by stating that athletes are likely to have positive perceptions of interpersonal justice when their coach treats them with dignity and respect and shows concern for their well-being. It is common for athletes to place high importance on their relationship with their coach because of the significant role the coach plays in their overall sport experience. Athletes who feel they are treated in a respectful manner are more likely to feel like a valued and important member of the team. This sense of value plays an

instrumental role in the athlete's desire to help the team reach its goals/objectives. An athlete may define their self-worth in regard to the team based upon the level of treatment they receive from their coach in comparison to other members of the team. For this reason, it is important that coaches treat all players equally, regardless of their role on the team (e.g. starter vs. bench player; (Jordan et al., 2004).

Informational Justice. Communication is key in regard to athlete perceptions of informational justice within a team (Jordan et al., 2004). Informational justice refers to the justifications given by persons of authority on the decisions that are made. Konovsky and Folger (1991) found that providing people with decision justifications enhances the extent to which they perceive the outputs received as fair. For example, explaining to players the criteria for a starting position and how they will be judged increases the likelihood of team members accepting the final decision as fair. If no explanation is given, it is more likely that athletes will come to their own conclusions and could find the decisions unfair. It is possible that coaches view their behaviors as fair (and they objectively could be) while their players view them as unfair. To bridge this gap, it is recommended that coaches ensure they are communicating information effectively about how decisions within the team are made (Jordan et al., 2004).

Responses to Injustice

A perceived state of inequity can cause stress, which individuals are motivated to relieve through behavioral reactions or cognitive changes (Adams, 1965). Adams (1965) proposed a variety of mechanisms, both behavioral and cognitive, that can be used to restore balance within the exchange relationship. There are three behavioral responses; seeking to increase outcomes, reducing inputs, or withdrawal. There are two cognitive responses which include cognitive

adjustments (reframing the way you think about the relationship between your inputs and outcomes) and changing the "comparative standard". The following examples will provide further context to these response options.

In the following examples demonstrating the five possible responses to injustice, consider a player who is upset because they feel as if they are working harder than other players (input), but are not receiving any playing time (outcome). The first three possible responses outlined by Adams (1965) are behavioral in nature. When an individual perceives injustice, the first possible strategy they may use to restore equity within the exchange relationship is to attempt to increase their level of outcomes. For example, a player may have a discussion with their coach about receiving more playing time in order to compensate for what they believe to be a higher level of work effort. They may also work harder in practice or games in the hopes that demonstrating increased effort will result in more playing time. A second strategy an individual may use is to reduce their inputs so that the ratio of their inputs to outputs becomes more favorable. A player may decrease some portion of their effort in a way that they believe is equivalent to the current amount of playing time that they are receiving. A third strategy that may be used is to withdraw or exit the exchange relationship completely. A player may decide to withdraw from their team by decreasing participation in team activities. They may also choose to remove themselves from the team entirely; however, this is usually a step that is taken after all other methods of resolving the injustice have been exhausted (Jordan et al., 2004).

The final two possible responses outlined by Adams (1965) are cognitive in nature. The fourth option an individual may choose in response to perceived injustice is to cognitively adjust their thinking. A player who is unhappy with their playing time may choose to reevaluate their skills and decide they are not as impactful as they thought (i.e., adjusting their perception of their

inputs) and the amount of playing time they are receiving is actually fair. They could also cognitively adjust their thinking about their outcomes where they decide that their outcomes are more favorable than they once thought. There are many athletes that never get the opportunity to play at the collegiate level, so a player may adjust their thinking to conclude that they are just lucky to be on the team and experience the social connections, regardless of how much playing time they receive. Lastly, the fifth possible response option is for an individual to change the 'comparative standard'. A player may choose a different athlete to compare their level of inputs and outputs to. They may be comparing themselves to a player at a different school or a different level. Within the same team, instead of comparing themselves with a starting senior, they may choose to compare their level of playing time to someone in their own grade or position, providing a greater chance of restoring a sense of equity.

Theoretical responses to perceptions of injustice have been suggested within a work environment (Adams, 1965) and minimally within an athletic context (Jordan et al., 2004); however there is a lack of in-depth exploration within the current literature applying these theoretical responses to see if they have practical value and can truly be differentiated, especially within the context of athletics. Therefore, the first three research questions within this study were exploratory and attempted to determine which, if any, of the cognitive and behavioral response mechanisms discussed above were utilized by athletes to restore a sense of balance in the exchange relationship. In addition to the response type, the relative experience of each type of injustice was assessed, which also allowed for the examination of the relationships between types of injustice and response types.

Research Question 1: What type(s) of injustice (distributive, procedural, informational, and/or interpersonal) do athlete's experience within their intercollegiate athletic teams?

Research Question 2: How do athletes respond (cognitively or behaviorally) when they experience injustice?

Research Question 3: Is there a correlation between the type of injustice experienced and the type of response used by athletes?

Because very little research has been conducted examining athlete responses to the stressful event of injustice, it was difficult to make specific predictions regarding research question 3 about the likely responses within the scope of this study. However, examining the research on ways in which individuals tend to cope with stressors in general provided some insight.

Folkman (1984) theorized that an individual participates in two processes when they encounter a stressor: cognitive appraisal and coping. These two processes serve as critical mediators to the response to the stressor and the immediate and long-term outcomes for the individual (Folkman, 1984). Cognitive appraisal, of which there are two kinds, primary and secondary, is used to evaluate whether a specific encounter is relevant to the individual's well-being, and if so, to what extent. During primary appraisal an individual evaluates whether they have anything at stake regarding the stressful situation (Folkman, Lazarus, Gruen, & Delongis, 1986). During secondary appraisal, an individual evaluates what, if anything, can be done to "overcome or prevent harm or to improve the prospects for benefit" (Folkman, Lazarus, Gruen, et al., 1986, p. 572). The individual will then evaluate various coping methods to manage the situation.

Coping can be defined as "changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person" (Folkman, 1984, p. 141). Folkman, Lazarus, Dunkel-Schetter, Delongis, and Gruen

(1986) suggest coping has two major functions: dealing with the problem that is causing distress and/or regulating emotion. These styles of coping are two of the most commonly studied, called emotion-focused vs. problem-focused coping. Problem-focused coping is coping that is directed at managing or altering the problem causing the distress while emotion-focused coping is coping directed at regulating emotional responses to the problem (Folkman, 1984). Specifically of relevance for the purposes of this study was a type of emotion-focused coping known as reappraisals. Reappraisals are a form of cognitive coping that leads to a change in the way an encounter is perceived, without changing the objective situation (Folkman, 1984). This form of coping is very similar to Adam's proposed cognitive responses of cognitive adjustments and changing the comparative standard, while problem-focused coping mirrors behavioral approaches.

Another similar and popular framework, especially within the sports psychology literature and one which may be of value as it pertains to understanding athlete responses to stress (i.e. injustice), is approach-avoidance coping. These two coping styles are similar to Adam's proposed responses to inequity and Lazarus and Folkman's framework in the way that they suggest individuals use both active and passive ways of coping with a stressful situation. Anshel and Wells (2000) define approach coping as referring to "behavioral, cognitive, and emotional activity directed toward the actual threat or its cognitive and emotional inner interpretations" (p.435). Approach coping is an active method of directly dealing with the source of a stressful situation (e.g. engaging with a coach when a player doesn't agree with a coach's decision). In contrast, avoidance coping refers to activity directed away from the threat (e.g. ignoring a decision that a player feels is unfair or deeming it unimportant; (Anshel & Wells, 2000).

In addition to understanding the different styles of coping that may be utilized by individuals, researchers have demonstrated that there are a variety of other factors that should be considered in attempting to make predictions about how individuals will respond to stressful situations. These include variables such as the specific characteristics of the stressor and the way the individual perceives the stressor.

Some stressors appear to be more related to certain coping styles than others, which suggests that the way in which an athlete chooses to cope is often a function of the type and nature of the stressor (Anshel, 1996). For example, Roth and Cohen (1986) suggested that an approach strategy is preferred when the stressor has certain characteristics: a) The situation is controllable, b) the source of the stress is known, c) the individual has high confidence in the situation, and d) the effects of the stressor are long term (e.g. if a coach's decision to not give playing time affects a player's chance to move to the next level of the sport). In contrast, an avoidance strategy may be more appropriate when a) the situation is less controllable (e.g. receiving a penalty from the referee), b) the source of the stress is unclear, c) the person's confidence is low to moderate, and d) the effects are immediate (e.g. losing the ball while the game is in progress; (Roth & Cohen, 1986).

In the case of the present study, it may be that athletes choose to respond to instances of injustice based upon a combination of the characteristics of the injustice and also how they perceive the situation in its entirety. If the athlete perceives that they have the ability to influence the situation (i.e. control), that their coach was the source of the injustice, if the athlete had confidence they could change the situation, and/or the outcomes of the stressor would affect them in the long-term, they may choose to use an approach style coping to restore equity (behavioral response; changing outputs). If the athlete feels as if they have no control over the

situation, they are unclear about who/what was causing the problem (i.e. source), they are not confident they have any power to change it, or the effects of the inequity are causing them immediate distress, they may choose to take a more indirect, avoidant approach (behavioral strategies like decreasing inputs, withdrawal, or cognitive strategies) to handle the injustice and may not actually search for a way to solve the problem and rebalance the exchange relationship.

Of the four characteristics suggested by Roth and Cohen (1986), the one that researchers have demonstrated to be particularly impactful and important is perceived changeability of the situation. Situations appraised as holding the possibility for change often result in more problem-focused coping than those having to be accepted (Folkman, 1984). In a study by Folkman et al. (1986), researchers discovered that coping patterns differed greatly between encounters that subjects appraised as having to be accepted versus those they appraised as changeable. In encounters that individuals perceived to be changeable, they used coping strategies that kept them focused on the situation (e.g. confronted, did planful problem solving, accepted responsibility, and selectively attended to the positive aspects of the encounter). When individuals appraised encounters as having to be accepted, they turned to forms of coping that allowed them not to focus on the troubling situation (e.g. distancing and escape-avoidance; Folkman, Lazarus, Dunkel-Schetter, et al., 1986). Within the present study, it is possible that athletes who believe they have the ability to enact change will use more behavioral responses (specifically increasing inputs) after experiencing injustice, as opposed to those athletes who perceive the injustice as unchangeable. This sense of changeability may vary for a variety of reasons, such as their relationship with their coach or the culture of the team.

Based upon this information, hypothesis 1 examined if an athlete's perception of the changeability of a specific experience of injustice influenced their response to that experience. In

other words, did the athlete's perception of their level of control to change the situation have an impact on the way they responded to it?

Hypothesis 1: Athletes who report experiences of injustice as changeable will be more likely to actively respond (i.e. by preferring to change inputs/outcomes) to injustice than those athletes who perceive the experience as unchangeable.

Outcomes of Injustice

Perceptions of injustice are important because they have certain implications at both the individual and team level. At the individual level, situations perceived as unfair or unjust can cause stress (Adams, 1965), which can then negatively impact individual psychological well-being. A stressful situation is one that is experienced by the individual as threatening or harmful, and it may alter or interfere with his or her physical and/or psychological well-being (Vaughn & Roesch, 2003). From very early on in the field, studies have found evidence that work stress was associated with psychological health, such as high levels of both anxiety and depression (Caplan (Caplan, 1975). Within an organizational setting, individuals who perceive more interactional (interpersonal & informational), procedural, or distributive injustice at work report higher degrees of strain than those employees who do not (Francis & Barling, 2005). Strain can be defined as the consequences associated with exposure to stressors and can include physiological outcomes and psychological symptoms such as anxiety, depression, and cognitive failure (Francis & Barling, 2005). While these forms of injustice and their resulting impact on well-being have been examined among employees within organizations, there was a need for examination of the topic as it pertained to members of athletic teams. Research has demonstrated that participation in athletics can serve as a buffer to stress; however, athletic participation itself

can also become an additional source of stress (Kimball & Freysinger, 2003). Perceptions of injustice may be one of the specific forms of stress for athletes, but more research is needed to examine its particular impact on individual psychological well-being.

At the team level, researchers have demonstrated that perceptions of injustice among members of a sports team have negative impacts to levels of team cohesiveness. Carron (1982) defines cohesion as "a dynamic process which is reflected in the tendency for a group to stick together and remain united in the pursuit of its goals and objectives" (p. 124). According to the conceptual model by Carron, Widmeyer, and Brawley (1985), team cohesion is composed of both social and task components. Social components refer to the degree to which members of a team like each other, and task components refer to the degree to which team members cooperate to achieve common performance goals. Additionally, social and task components of cohesion can be further broken down as a function of an individual's attraction to the group (ATG) and as a function of an individual's perceptions of the group as an integrated whole (GI).

In a study by Czekanski (2012), researchers examined how perceptions of justice affected levels of trust between athletes and coaches. Results demonstrated a positive significant relationship between procedural, interpersonal, and informational justice and trust. Those greater feelings of trust felt by the athlete in turn resulted in a better quality relationship between the coach and player and increased levels of player commitment to the coach. The results suggest that if players perceive injustice on their athletic teams, but trust is not established, then when a coach provides a player with an item of value (e.g. playing time), the athlete will not feel obligated to reciprocate. This decrease in commitment and lack of some form of effort by an athlete can have negative effects on an overall team. In another study by Turman (2003), athletes who perceived their coach showing favoritism to a particular player or group within their team,

stated that it created feelings of jealousy towards other athletes, as well as strong negative feelings towards the coach. Players reported that these feelings caused separation within the team and an overall decrease in team unity, demonstrating the detrimental effect perceptions of injustice can have on team cohesion.

Based upon these findings, the second hypothesis within this study stated that athletes who perceived injustice on their athletic teams would report lower levels of individual well-being, assessed as the presence of psychological health symptoms, and lower team cohesion than athletes who did not perceive injustice on their athletic teams.

Hypothesis 2a and b: Athletes who perceive injustice on their athletic teams will report more psychological health symptoms (a) and lower perceived team cohesion (b).

Implications of Chosen Response to Injustice on Individual and Team-Related Outcomes

To the best of the author's knowledge, there had not been research conducted that specifically examined the implications of the use of any of the five responses to injustice proposed in Adam's Equity Theory. However, both emotion-focused and problem-focused, and avoidance-approach styles of coping share similarities with the five responses proposed by Adams. By examining the literature on these two frameworks, general predictions were made regarding the implications of certain responses, though this research question was still largely exploratory.

The cognitive responses of cognitive adjustments and changing the comparative standard share similarities with the emotion-focused methods of coping (e.g. reappraisal, positive reinterpretation of events, etc.) and avoidance coping, which diverts attention away from the stressful event (Anshel, 1996). The behavioral responses of increasing outcomes, reducing

inputs, and withdrawal share similarities with the problem-focused methods of coping (e.g. generating alternative solutions, evaluating the pros and cons, etc.) and approach coping, which emphasizes actively attending toward the situation (Anshel, 1996).

For these reasons, it was beneficial to consider which of these methods of coping, either emotion-focused and problem-focused, or avoidance and approach coping, impacted certain individual and team outcomes, in order to offer insight into the possible results of research question four within this study.

Implications of Problem-Focused and Emotion-Focused Coping. A variety of research supports the idea that problem-focused coping positively predicts well-being and those individuals who utilize active coping styles are more likely to experience lower stress levels (Anthony, 2008). Conversely, the more individuals utilize emotion-focused coping strategies, the lower their psychological well-being. Further, Folkman (1984) suggested that in situations where the environmental stressor can be altered, problem-focused coping strategies are more likely to be used to maintain psychological well-being. When the problem is inalterable, emotion-focused coping strategies are more likely to be implemented (Mayordomo-Rodríguez, Meléndez-Moral, Viguer-Segui, & Sales-Galán, 2015).

In a study of college students by Chao (2011), results indicated that when in a stressful situation, a high level of problem-focused coping helped students maintain their well-being, whereas a low level of problem-focused coping affected this association in a negative way. In another study of college students, researchers determined that proactive, problem solving coping had a beneficial effect on symptoms of depression, phobic anxiety and overall level of psychological distress (Gustems-Carnicer & Calderón, 2013). Problem-focused coping has also been shown to predict positive affect, whereas emotion-focused coping predicted negative affect

(Ntoumanis & Biddle, 1998). However, emotion-focused coping has been identified as a coping style that can provide insight into the stressful situation and help an individual believe that the stressor is not something to be feared. This may even enable them to find positive meaning in the ongoing stressful event and in turn lessen the negative impact to their psychological well-being (Baker & Berenbaum, 2007). It may also allow them to process the situation and make a rational decision on how to actively handle the stressor, since problem-focused coping can actually be counter-productive if an individual quickly decides on a particular strategy without using their emotions as a guide to help solve the problem (Baker & Berenbaum, 2007). Overall, based upon these examples, it was possible that when faced with a stressful situation (e.g. injustice), athletes who utilized problem-focused coping and approach the situation directly, as opposed to only regulating their emotions through emotion-focused coping, may have experienced fewer mental and/or emotional tolls on their well-being.

In examining the outcome of team cohesion, it may be beneficial to draw from research regarding the relationship between social support and coping styles due to the fact that one of the two components of team cohesion is social. Research on social support and coping has shown that problem-focused coping and satisfaction with social support are related (Sarid, Anson, Yaari, & Margalith, 2004). In a study of female college student athletes, social support was found to be related to coping behaviors where perceived satisfactory support was positively associated with students' use of problem-focused coping (Chao, 2011). While the social component is only half of what comprises team cohesion, it is possible that perceptions of strong social support by an athlete facilitates the use of more problem-focused coping. This allows the athlete to actively work to manage the stressful situation (i.e. injustice) and may in turn lead to stronger perceived team cohesion. Those athletes that do not perceive strong social support from

their team members may utilize less effective coping methods and may indicate lower levels of overall team cohesion.

Implications of Approach Coping and Avoidance Coping. The other methods of coping relevant to examine were approach coping and avoidance coping. In general, research demonstrates that individuals who report more avoidance coping tend to experience decreased levels of psychological well-being while those who report more approach coping strategies experience increased levels of psychological well-being (Wilkinson, Walford, & Espnes, 2000). Similar to the research on controllability for problem-focused and emotion-focused coping, there is evidence to support that approach coping is better if the individual perceives the situation as controllable, while avoidance coping is better if the situation is uncontrollable. The idea being that approach coping allows one to take advantage of opportunities for control if present (Roth & Cohen, 1986). Additionally, just as emotion-focused and problem-focused coping have benefits and drawbacks in regard to implications for psychological well-being and team cohesion, so do approach and avoidance coping styles.

The potential costs of avoidant coping can be substantial. Avoidant strategies can interfere with an individual's ability to take appropriate action when possible. Individuals who attempt to keep threatening cognitions out of awareness may also experience negative psychological symptoms such as emotional numbness, unwanted and intrusive negative thoughts and disruptive avoidance behaviors (Roth & Cohen, 1986). In regard to an athletic environment, in a study of athletes, those who reported more avoidant coping tended to experience greater cognitive anxiety (Ntoumanis & Biddle, 1998). In a study of teacher education students by Gustems-Carnicer and Calderón (2013), researchers found that avoidance coping strategies were associated with negative psychological well-being, specifically acceptance-resignation coping

was associated with more psychological symptoms such as somatization, depression, anxiety, paranoid ideation and psychological distress. However, the use of that strategy is not maladaptive in itself, as the acceptance-resignation strategy is closely related to the controllability of the stressor. When a stressor is seen as uncontrollable, acceptance of the problem may be proactive, while in the case of a controllable stressor, the use of resignation may be harmful (Gustems-Carnicer & Calderón, 2013).

While avoidant strategies can decrease psychological well-being when used as the primary form of coping, they may also be beneficial in some instances. Such strategies can help to reduce stress and prevent anxiety from becoming crippling and overwhelming. By using avoidant strategies, an individual is provided with the needed time for comprehending the event and planning some sort of action to change the environment. Partial or minimal use of avoidance coping can lead to increase hope or courage and a mastery of emotions (Roth & Cohen, 1986). Overall, similar to emotion-focused coping, avoidance coping is most effective as a means to facilitate approach coping and regulate emotions in hopes of eventually confronting the stressful situation. Even in instances when the situation is perceived as unchangeable, the initial reduction in stress or anxiety may not be beneficial if there is no eventual attempt to resolve the situation and eliminate the source of stress (Roth & Cohen, 1986).

Approach strategies have a variety of benefits. These strategies allow for appropriate action and/or the possibility for noticing and taking advantage of changes in a situation that might make it more controllable (Roth & Cohen, 1986). Approach coping is a method that allows an individual to actively work to confront the situation that is causing them stress. A study of young adults by Wilkinson et al. (2000) found a direct effect of approach coping on psychological well-being. Their results supported the idea that those young adults who utilized

approach coping strategies reported overall increases in well-being compared to those who used avoidant coping strategies (which were associated with psychological distress). Overall, active forms of coping may be particularly effective in mitigating adverse psychological outcomes under high levels of stress (Mitchell, Cronkite, & Moos, 1983).

While there are benefits of approach coping there are also drawbacks as well. Because approach coping encourages the active confrontation of the stressful situation, this orientation toward threatening material can lead to increased distress. Additionally, when the stressful situation is perceived as unchangeable, approach coping can lead to worrying that is both time consuming and nonproductive (Roth & Cohen, 1986). It can also lead to hopelessness if the attempts to remedy the situation are unsuccessful.

In regard to the present study, based on the above research, it was possible that athletes faced with a stressful situation (i.e. injustice) who chose to use approach style coping and actively confront the situation would experience less negative impacts to their psychological health than those who chose to use avoidant style coping. This was especially possible when they perceived the situation as controllable.

In examining the outcome of team cohesion, it was beneficial to again draw from research regarding the relationship between social support and coping styles due to the fact that one of the two components of team cohesion is social. In the same study of female college student athletes mentioned previously, students who used high avoidant coping strategies in a low social support environment may have the lowest well-being when they are in a stressful situation (Chao, 2011). Additionally, even those students who perceived high levels of social support had lower levels of well-being after using avoidant coping strategies. It is possible that avoidant coping may overpower social support of any level and impact well-being in a negative

way. This research demonstrates a connection between social perceptions (i.e. of support) and coping strategies, however, there is yet to be a lot known on how individual coping can affect the perceptions of more holistic social connections among a group (i.e. cohesion).

In combining these findings and an understanding of different types of responses, I determined if different responses to a scenario of injustice could relate to the extent to which experienced injustice related to individual wellbeing and team cohesion. The fourth research question specifically examined if the ways in which athletes would respond to injustice moderated the relationship between experienced injustice and athlete wellbeing and team cohesion. In other words, did the type of response to injustice have implications for the athlete's individual psychological wellbeing and/or the cohesion among an athletic team.

Hypothesis 3: An athlete's response to injustice will be related to psychological health symptoms and team cohesion.

Research Question 4a and b: Does an athlete's response to injustice moderate the relationship between injustice and a) athlete psychological well-being and b) team cohesion?

In sum, these research questions addressed a current gap in the literature that exists in regard to the direct applicability of equity and justice theories to an athletic context. The goal of the study was to understand the prevalence of specific forms of perceived injustice by athletes and the ways in which they choose to respond to those perceptions. Additionally, the study was designed to understand how the responses to injustice that athletes would be likely to use may or may not mitigate the potential negative effects on their individual psychological wellbeing and team cohesion. These responses may mirror active versus passive coping strategies that have been examined in the stress literature, or may take a different form given the unique stressful

experience of injustice. The coaches of athletic teams may practically benefit by having a better understanding of how their athletes cope with injustice and they can become more aware of the individual and team consequences of athlete justice perceptions.

CHAPTER II

METHODOLOGY

Participants

The sample for this study consisted of athletes currently participating as a member of an intercollegiate sports team within the United States. Participants represented 19 states throughout the U.S. Although initially only participants competing in a fall sport were desired, in order to achieve the largest sample size possible, participants in the offseason were also accepted. However, the majority of the sample was currently participating in a fall sport (83%). One hundred and thirteen individuals completed at least the first set of items within the survey (measuring perceptions of injustice) with a total of 78 individuals completing the entire survey. Therefore, responses from individuals who completed at least a quarter of the survey were kept in the data set (78 total items, 18 in first set). Of the 68 school officials that were contacted, only 19 replied. Of those 19, only 15 agreed to distribute the survey to athletes.

Respondents ranged in age from 18 to 25, with 91.8% of the sample falling between the ages of 18 to 22. There was a relatively equal distribution of men (59%) and women (41%). The majority of the sample was white (80.5%). Regarding athletic eligibility status, respondents were predominately in their senior year (40.3%), followed by sophomores (23.4%), juniors (20.8%), and freshman (15.6%). Thirty-nine percent of respondents played at a NAIA school, followed by 26% at Division III, 22.1% at Division I, and 13% at Division II. The majority of the

participants received an athletic scholarship to play their sport (74.4%). Most worked primarily with their head coach (69.2%) and had been playing for their head coach for 2 years or less. There were 11 sports represented in the sample, with the majority playing soccer (70.5%). Respondents consisted of primarily international students (42.31%), followed by in-state (35.9%), and out-of-state (21.8%) students.

Procedure

All communication was done via email and procurement of data was done online using the QuestionPro platform. Participants were recruited either through the university's athletic director or their coach. An email was be sent by the researcher to the athletic directors or coaches at selected universities with an explanation of the study, a request for participation, a pdf of the survey, and the IRB study approval. After receiving agreement to participate, a template email that could be used for survey distribution and the link to the survey were sent to the university contact. Because emails could not be sent directly to student athletes as originally hoped, confidentiality was emphasized in the survey introduction. The survey began with an informational letter, followed by an item requiring acknowledgement of informed consent before proceeding (See Appendix B). Average time to complete the survey was 8 minutes.

Materials

Survey items were based on those used in past studies of justice, psychological well-being, and team cohesion. A survey of athlete responses to injustice was created by the researcher because no current assessments were found to exist.

Perceptions of Types of Injustice. To measure the four forms of injustice (distributive, procedural, informational, and interpersonal), I used a form of Colquitt's (2001) Organizational Justice questionnaire that had been adapted from a business context to reflect an athletic environment (Czekanski, 2012 ; see appendix C for complete survey). An example item from the original scale was: "My boss has communicated details in a timely manner." This item in its adapted form reads as: "My coach has communicated details in a timely manner." Six procedural, four distributive, four interpersonal, and four informational justice questions form the questionnaire and were all measured on a Likert scale from 1 *(strongly disagree)* to 6 (*strongly agree).* Czekanski (2012) found all items within the developed scale to have both face and content validity. Because the overall purpose of this study was to measure perceptions of injustice, and to aid in interpretation of the data, all items were reverse coded so that higher scores indicated higher perceptions of injustice. For the purposes of this study and when analyzing the data from this scale, each of the four types of injustice were viewed as separate measures since results of multiple studies by Colquitt (2001) suggest that organizational justice is best conceptualized as four distinct dimensions. Additionally, all subscales were found to have high reliability with a Cronbach's alpha above .70. In the present study, Cronbach's alpha was found to range between .75 and .91 for the four subscales.

Using the same framework as Czekanski (2012), perceptions of justice was evaluated in relation to the player's perceived role within their team. A definition of "role" was provided on the survey based on the outcomes athletes may receive as suggested by Jordan et al. (2004), of playing time, responsibility (i.e. team captain), and assigned field position. Prior to beginning the survey players were asked to think about these outcomes as they relate to them personally on their current athletic team and based on these reflections, rate their role on the team on a five -

point Likert scale ranging from 1 *(limited contributor)* to 5 *(major contributor).* For example, a senior starting quarterback on a football team who is also the team captain would most likely rate his role on the team as a 5 because he is a major contributor to the team. A freshman who does not receive playing time, holds a second-string position, and has no leadership responsibilities would most likely rate their role on the team as a 1 or 2, since their contributions are more limited. Specifying role ensured that each student-athlete was using a similar reference in their survey responses regarding justice. Further, this specified rating target of "role" was more all-encompassing of their athletic experience as a member of the team, as opposed to focusing solely on only one specific aspect, such as individual playing time or individual responsibility on the team.

Perceptions of Overall Injustice. While the four dimensional measure of justice is a commonly used framework, other researchers have suggested that focusing on singular aspects of justice may be less realistic than an individual's holistic judgment of fairness (Ambrose & Schminke, 2009). To overcome this possible limitation, the Perceived Overall Justice Scale (POJ; Ambrose & Schminke, 2009) was used as a consideration of overall fairness judgements. The POJ scale consists of three items to assess individuals' personal justice experience and three items to assess the fairness of the organization in general. The scale items were adapted to reflect language appropriate for an athletic environment. Words such as organization and employees were replaced with the words team and teammates, or coach where relevant. Participants rated their agreement with each item on a 7-point Likert scale ranging from 1 *(strongly disagree)* to 7 *(strongly agree)*. Because the overall purpose of this study was to measure perceptions of injustice and to aid in interpretation of the data, all items were reverse coded so that higher scores indicated higher perceptions of injustice. The measure has high internal reliability with a

Cronbach's alpha value of .93. (Ambrose & Schminke, 2009). In the present study, Cronbach's alpha was .88.

At the conclusion of these scale items, participants were asked one follow up question regarding which coach they thought of when the questions referred to "my coach". The two response options were "Head coach" or "A different coach I work with frequently." This question was used as a means of providing clarity on who the player tended to reference. Most participants reported working primarily with their head coach (69.2%).

Responses. To measure athlete responses to injustice I developed my own scale based on the theoretical literature regarding response styles. The scale was developed because no current scale exists that measures the proposed theoretical responses to injustice offered by Equity Theory. Initial questions were based on the definitions of responses to inequity offered by Adams (1965) in regard to both cognitive and behavioral responses. Cognitive responses included cognitive adjustments and changing the comparative standard, while behavioral responses included increasing outcomes, reducing inputs, and withdrawal/exiting. Prior to distributing the survey, content validity was assessed for the Responses to Injustice Scale items to ensure that the items aligned with the definitions provided by Equity Theory. This was accomplished by having a subject matter expert in the field of equity review the items to ensure they align with the response options proposed in the theory. Additionally, graduate students were recruited to complete a survey in which they assigned each item on the scale to one of five categories that corresponded to the five responses to inequity. If the items were placed consistently into the correct categories, evidence for content validity was strengthened. Sixteen graduate students completed the survey. Any item with less than 75% category agreement was either taken out or rewritten for clarity. For example, the original item "I would focus on

outcomes that are important to me, other than just playing time" was rewritten as "I would focus on other benefits of being on the team that are important to me, rather than just playing time" to increase the clarity of the item. Of the original 25 items, four items were removed and three were rewritten. A total of 21 items remained. Psychometric properties of the newly developed scale, including the results of a factor analysis and reliability analyses are provided at the beginning of the results section.

To put the response options into context and enable the athletes to more accurately report how they would respond to injustice, participants were provided with the hypothetical situation of putting in more effort than a teammate but receiving less playing time. The rationale behind using a hypothetical situation was enhance the practicality of the response options and to avoid excluding any individuals who had not experienced injustice on their team before. So, while the answers to these items are not direct responses of personal injustice experiences, they do represent what is referred to as each participant's "injustice response style" and it is likely that individuals would respond similarly in their own injustice experiences.

Team Cohesion. To measure athlete perceptions of team cohesion, the Group Environment Questionnaire (GEQ; Carron et al., 1985) was used. The GEQ is comprised of 18 total items that measure cohesion in regard to the individual versus the group and task versus social components. The measure is divided into two major categories: a member's personal attraction to the group (ATG) and a member's perceptions of the group as a totality, group inegration (GI). Conceptually, ATG represents the interaction of the motives working on the individual to remain in the group, the totality of the individual members' feelings about the group, their personal role involvement and involvement with other group members. Conceptually, GI represents the closeness, similarity, and bonding within the group as a whole,

and the extent to which the group is unified (Carron et al., 1985). These two categories are then further broken down into social and task cohesion. The social aspect pertains to the individual's general orientation toward developing and maintaining social relationships with the group. The task aspect pertains to the individual's general orientation toward achieving the groups goals and objectives. Social ATG (ATG-Social) comprises five items, social GI (GA-Social) comprises four items, task ATG (ATG-Task) comprises four items and task GI (GI – Task) comprises five items. The response scale ranges from 1 (*strongly disagree*) to 9 (*strongly agree*). The psychometric properties of the GEQ (e.g. construct and predictive validity) were shown to be satisfactory with a Cronbach's alpha values for the subscales ranging from .64 - .76 (Carron et al., 1985). In the present study, the Cronbach's alpha value for the entire scale was .88.

Psychological Well-being. Individual athlete psychological well-being was measured using the scales related to health and well-being within the second version of the Copenhagen Psychosocial Questionnaire (COPSOQ II; Pejtersen, Kristensen, Borg, & Bjorner, 2010). The first version of the COPSOQ was developed for Danish work professionals and researchers to measure a broad range of psychosocial factors. The second version, which has 41 subscales and 127 items in total, was created to further develop the original scale while also adding new validated scales (Pejtersen et al., 2010). For the purpose of the present study, only the following three subscales were used: sleeping troubles, stress, and depressive symptoms, for a total of 12 items. Participants were asked to respond to the items based on their health over the past month. These three dimensions were measured on a five-point scale ranging from (1) *not at all* to (5) *all the time* with higher scores indicating more psychological health symptoms. All scales being used demonstrated acceptable internal consistency reliability with Cronbach's alpha values

above .70 (Pejtersen et al., 2010). In the present study, Cronbach's alpha ranged from .67 to .86 for the three subscales.

Injustice Experience. To further gain insight about each athlete's experiences with injustice on their team I asked participants to provide answers to three situation-specific questions. These supplemented the previous measures that were intended to capture general dispositions. First, they were asked to describe a specific instance of injustice that they had experienced on their current athletic team in their own words. Next, they were asked to answer a question regarding the perceived changeability of the situation on a scale of 1 *(Not at all changeable)* to 7 *(Very changeable).* In other words, how much control did they feel they had over their ability to influence the unfair situation. Finally, I asked them to describe how they responded to that particular situation in their own words. regarding the changeability of the situation, and then describe how they responded to the injustice.

Demographics. A demographic questionnaire concluded the study to measure characteristics of the sample population including age, athletic and academic year in school, division, sport, size of team, years playing for current head coach, race, gender, years on the current athletic team, if they had or had not received an athletic scholarship, total years playing the sport, and current status (in-state, out of state, international student). Years as a member of the current athletic team, athletic year in school, division, scholarship, and years playing for the current head coach were considered as possible control variables in testing the study hypotheses, however control variables were not included in the hypothesis tests because many participants dropped out before this portion of the study, so including them would have limited the sample size. In an effort to focus on exploring the research questions, as many responses as possible were retained. The question "Do you primarily work with your head coach or a different coach

on the team?" was also included and could be used in future research as a possible control variable. Role on the team, athletic year, and years playing on the current team were all correlated with injustice and would be interesting variables for further study.

CHAPTER III

RESULTS

The quantitative and qualitative data for this project were gathered through a survey administered through QuestionPro. To prepare the data for analysis, all cases that were completely blank were removed. The following analyses were conducted with data collected from the final analyzable sample of participants (N = 113). Those 113 participants completed at least the first set of measures within the study, with about 68% of the total participant count completing the entire survey (N = 78). These data were analyzed using correlational and regression-based techniques in SPSS (v23). Descriptive statistics for all study variables are summarized in Table 1 and correlations between all study variables are summarized in Table 2. Results were identified as statistically significant at alpha = .05 and/or when the 95% confidence interval around an estimate excluded zero.

Table 1. Descriptive statistics for all study variables.

Variables	*N*	*M*	*Mdn*	*SD*	*Min*	*Max*
Role	133	3.17	4.00	1.15	1.00	5.00
Changeability of Injustice situation	69	3.17	3.00	2.00	1.00	7.00
Age	78	20.72	21.00	1.77	18.00	25.00
Athletic Year	77	2.86	3.00	1.00	1.00	4.00
Academic Year	77	3.13	3.00	1.00	1.00	5.00
Primary coach or other	77	1.30	1.00	0.46	1.00	2.00
Gender	78	1.41	1.00	0.50	1.00	2.00
Years playing for the current team	78	2.24	2.00	1.20	1.00	5.00
Scholarship	78	1.26	1.00	0.44	1.00	2.00
Currrent Status	78	2.06	2.00	0.89	1.00	3.00
Decreasing effort response	97	1.89	1.75	0.94	1.00	4.75
Cognitive adjustment response	97	4.56	4.50	1.30	1.00	7.00
Withdrawal response	97	2.25	2.00	1.08	1.00	6.25
Changing the comparative standard response	97	3.96	4.00	1.41	1.00	6.67
Advocating/talking to the coach response	97	4.46	5.00	1.69	1.00	7.00
Cohesion: ATG-S	86	7.05	7.40	1.58	2.80	9.00
Cohesion: ATG-T	86	6.23	6.00	1.74	2.50	9.00
Cohesion: GI-S	86	6.50	6.50	1.68	1.75	9.00
Cohesion: GI-T	86	6.02	6.30	1.65	1.80	9.00
Distributive injustice	133	2.22	2.00	1.11	1.00	6.00
Procedural injustice	133	2.59	2.40	1.08	1.00	6.00
Interpersonal injustice	133	2.18	2.00	1.01	1.00	5.75
Informational injustice	133	2.27	2.00	0.89	1.00	4.50
Percieved Overall Injustice (POJ; 2 dimensions)	117	2.04	1.83	1.17	0.33	6.33
Sleeping troubles	78	3.54	3.50	0.96	1.50	5.00
Stress	78	3.30	3.25	1.00	1.00	5.00
Depressive Symptoms	78	3.70	3.63	1.00	2.00	5.00
Psychological Distress (3 dimensions)	78	2.49	2.50	1.00	1.00	4.25
Organizational Injustice (OJQ; 4 dimensions)	133	2.33	2.12	1.00	1.00	5.29

N = 78

Note: Coach (1=Primary, 2=Other)

Gender (1=Male, 2=Female)

Scholarship (1=Yes, 2=No)

Current Status (1= In State, 2= Out of State, 3= International Student

Table 2. Correlations for all study variables

	1.		2.		3.		4.		5.		6.		7.	
1.Role														
2. Changeability	.01													
3. Age	.40	**	-.02											
4. Athletic Year	.50	**	-.02		.84	**								
5. Academic Year	.49	**	-.06		.84	**	.92	**						
6. Division	-.17		.03		.08		-.03		-.06					
7. # of players	-.11		-.05		.20		.13		.19		.31	**		
8. Years played for HC	.47	**	-.17		.49	**	.65	**	.66	**	-.17		.06	
9. Head Coach or different coach?	-.24	*	.11		-.25	*	-.22		-.26	*	-.04		.12	
10. Gender	-.02		-.28	*	-.36	**	-.18		-.15		-.39	**	-.50	**
11. Years current team	.40		-.16		.61	**	.71	**	.72	**	-.12		.15	
12. Scholarship	.17		-.09		-.25	*	-.11		-.13		-.01		-.30	**
13. Total years playing sport	.02		.14		.23	*	.31	**	.22		.44	**	.39	**
14. Status	.06		.30	*	.33	**	.29	*	.26	*	.07		.23	*
15. Sleep troubles	.12		-.03		.07		.10		.12		-.04		-.17	
16. Stress	.10		-.03		.05		.14		.12		-.10		-.18	
17. Depressive Symptoms	-.06		.13		-.01		.08		.07		-.08		-.03	
18. Psychological Distress	.07		.02		.05		.13		.12		-.09		-.15	
19. Decreasing effort	-.10		.06		.12		.22		.17		.08		.20	
20. Cognitive adjustments	-.09		-.31	**	-.10		-.14		-.14		-.04		-.03	
21. Withdrawal	-.01		.06		.19		.21		.25	*	-.08		.06	
22. Comparative standard	.15		.04		.12		.09		.09		-.08		.03	
23. Advocating/talking to coach	.25	*	.06		.02		.06		.00		.04		-.08	
24. ATG-S	.12		-.11		-.01		-.02		.00		-.07		.06	
25. ATG -T	.29	**	-.14		.08		.10		.14		-.20		-.07	
26. Gi-S	-.12		-.12		-.05		-.12		-.07		-.06		.09	
27. GI-T	-.14		-.05		-.04		-.12		-.06		-.04		.11	
28. Distributive Injustice	-.60	**	.05		-.11		-.13		-.18		.11		.06	
29. Procedural Injustice	-.47	**	-.10		.00		-.03		-.05		.01		.16	
30. Interpersonal Injustice	-.33	**	.02		.10		.23	*	.15		-.17		.20	
31. Informational Injustice	-.34	**	-.08		.16		.19		.16		.01		.32	**
32. Total POJ	-.19	*	-.10		.14		.24	*	.15		-.07		.18	
33. Justice Total	-.51	**	-.04		.04		.06		.01		-.01		.21	

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

Table 2. continued

	8.		9.		10.		11.		12.		13.		14.	
8. Years played for HC														
9. Head Coach or different coach?	-.11													
10. Gender	.07		-.09											
11. Years current team	.90	**	-.10		.00									
12. Scholarship	.11		.00		.29	*	.05							
13. Total years playing sport	.15		-.10		-.38	**	.14		.13					
14. Status	-.04		-.01		-.42	**	-.03		-.48	**	.15			
15. Sleep troubles	.07		-.24	*	.41	**	.01		.08		-.12		-.01	
16. Stress	.08		.00		.43	**	.09		.13		-.23	*	-.01	
17. Depressive Symptoms	.04		-.01		.35	**	.03		-.02		-.12		.02	
18. Psychological Distress	.07		-.11		.47	**	.05		.08		-.19		.00	
19. Decreasing effort	-.03		-.04		-.15		.02		-.22		.13		.17	
20. Cognitive adjustments	.08		-.09		.14		.00		.20		-.07		-.22	
21. Withdrawal	-.09		-.21		-.04		-.01		-.21		-.07		.07	
22. Comparative standard	.05		-.03		-.06		.06		-.16		-.09		.10	
23. Advocating/talking to coach	-.03		-.10		.04		.00		.10		.04		.05	
24. ATG-S	.22		.06		.01		.22		.10		-.06		-.02	
25. ATG -T	.26	*	-.12		.18		.20		.08		.04		-.09	
26. Gi-S	.07		.11		-.07		.08		-.15		.03		.04	
27. GI-T	.00		.10		-.03		.00		-.08		-.03		-.04	
28. Distributive Injustice	-.17		.16		-.03		-.12		-.04		.07		.07	
29. Procedural Injustice	-.03		.26	*	-.02		.04		-.04		-.01		.06	
30. Interpersonal Injustice	.18		.12		.06		.25	*	-.08		.03		.14	
31. Informational Injustice	.13		.22		-.11		.22		-.18		-.01		.21	
32. Total POJ	.20		.11		.06		.27	*	-.07		.07		.05	
33. Justice Total	.02		.23	*	-.03		.10		-.09		.02		.13	

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

Table 2. continued

	15.		16.		17.		18.		19.		20.		21.	
15. Sleep troubles														
16. Stress	.54	**												
17. Depressive Symptoms	.52	**	.71	**										
18. Psychological Distress	.83	**	.88	**	.85	**								
19. Decreasing effort	.03		.21		.20		.85	**						
20. Cognitive adjustments	.12		-.14		-.10		.20		-.33	**				
21. Withdrawal	.19		.20		.31	**	-.10		.48	**	-.42	**		
22. Comparative standard	-.03		.12		.07		.31	**	.16		-.22	*	.33	**
23. Advocating/talking to coach	.05		.00		-.04		.07		.03		-.08		-.10	
24. ATG-S	-.09		-.22	*	-.28	*	-.04		-.53	**	.45	**	-.60	**
25. ATG -T	-.05		-.25	*	-.22		-.28	*	-.45	**	.36	**	-.46	**
26. Gi-S	-.23	*	-.38	**	-.28	*	-.22		-.39	**	.27	*	-.38	**
27. GI-T	-.15		-.37	**	-.10		-.28	*	-.32	**	.38	**	-.33	**
28. Distributive Injustice	-.10		-.10		.05		-.10		.16		-.08		.34	**
29. Procedural Injustice	-.09		.04		.03		.05		.26	**	-.27	**	.43	**
30. Interpersonal Injustice	.04		.21		.19		.03		.23	*	-.29	**	.36	**
31. Informational Injustice	-.03		.14		.10		.19		.26	**	-.29	**	.38	**
32. Total POJ	.05		.27	*	.24	*	.10		.28	**	-.30	**	.47	**
33. Justice Total	-.06		.07		.10		.24	*	.26	**	-.26	**	.44	**

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

Table 2. continued

	22.		23.		24.		25.		26.		27.		28.	
22. Comparative standard														
23. Advocating/talking to coach	.07													
24. ATG-S	-.26	*	-.03											
25. ATG -T	-.26	*	.06		.55	**								
26. Gi-S	-.23	*	-.12		.51	**	.53	**						
27. GI-T	-.27	*	-.08		.45	**	.57	**	.64	**				
28. Distributive Injustice	.04		-.17		-.19		-.32	**	-.02		.03			
29. Procedural Injustice	.14		-.21	*	-.32	**	-.41	**	-.11		-.21		.79	**
30. Interpersonal Injustice	.08		-.12		-.14		-.18		-.02		-.16		.59	**
31. Informational Injustice	.10		-.22	*	-.25	*	-.45	**	-.15		-.24	*	.55	**
32. Total POJ	.24	*	-.25	*	-.32	**	-.46	**	-.13		-.32	**	.56	**
33. Justice Total	.10		-.21	*	-.28	**	-.41	**	-.09		-.17		.85	**

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

Table 2. continued

	29.		30.		31.		32.		33.
29. Procedural Injustice									
30. Interpersonal Injustice	.76	**							
31. Informational Injustice	.74	**	.72	**					
32. Total POJ	.73	**	.75	**	.74	**			
33. Justice Total	.95	**	.87	**	.84	**	.79	**	

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

Responses to Injustice Scale Development

Prior to hypothesis testing, several analyses were conducted to examine the psychometric properties of the newly developed responses to injustice measure. A factor analysis was conducted to examine the underlying structure of the data and determine if there was a true distinction between each of the five different response categories. I began by running a parallel analysis, then a principal components analysis which, along with the scree plot, suggested a four-factor structure. An exploratory factor analysis was then conducted, in which I specified four factors as the parallel analysis suggested. I also selected a promax rotation because I expected the factors would be related to one another, then examined interpretability by looking at the pattern matrix. The four-factor structure did a satisfactory job of describing the data, but because five items were cross-loading or loading poorly onto the factors (items below +- .30 were considered poorly loading), I reran the analysis with a five-factor structure. The items loaded more cleanly onto the five-factor structure, with only three items cross loading or loading poorly. After removing these three items and running the analysis again, only one item cross loaded. After

removing this item, simple structure was achieved. Overall, a five-factor structure with 17 of the original 21 items proved to be cleaner and more interpretable than the four-factor structure.

While there were five factors, interpretation of the item loadings suggested that the factors did not align perfectly with the original five response categories proposed by Adams of increasing outcomes, decreasing inputs, withdrawal, cognitive adjustments, and changing the comparative standard. One item from the original category of increasing outcomes and three items from the original category of decreasing inputs now combined to form a new category which I named decreasing effort, with increasing outcome simply being a reverse scored item. Appropriately, all other items in this category described the individual decreasing a portion of their effort either at or outside of practice. Another category was named "advocating/talking to the coach" and was composed of two items originally on the increase outcomes category. Both items in this category described a response in which the player spoke with their coach about receiving more playing time, while the items about increasing one's personal effort did not correlate with this factor. The other three of the five original expected categories remained. Withdrawal, which retained all four original items, cognitive adjustment, which retained four of the six original items, and comparative standard, which retained all three of the original items. The subscales indicated by this factor analysis were applied when testing hypotheses about the effects of responses to injustice. The subscales demonstrated acceptable reliability, with alpha being .81 for the decreasing effort subscale, .81 for the cognitive adjustment subscale, .76 for the withdrawal subscale, .71 for the comparative standard subscale, and an r value of .71 for the advocating/talking to the coach subscale, which only had two items within it.

Research Question 1

Research question 1 asked which, if any, of the four types of injustice (distributive, procedural, informational, and/or interpersonal) athletes experienced on their collegiate athletic teams. Based upon descriptive statistics, athletes reported perceiving all types of the four forms of injustice on their athletic teams. A repeated measures ANOVA was used to determine that the difference between the means of the four types of injustice were statistically significant F (2.5, 323.90) = 14.49, $p < .001$. The Greenhouse-Geisser estimate was reported because the assumption of sphericity was violated. Specifically, they perceived procedural injustice the most (M=2.59, SD = 1.08), followed by informational injustice (M = 2.27, SD = .89), distributive injustice (M = 2.22, SD = 1.11), and finally interpersonal injustice being reported the least (M = 2.18, SD = 1.01). Paired samples t-tests were then used to determine which specific mean differences were statistically significant. All mean differences were significant ($p < .05$), with the exception of distributive injustice compared to interpersonal and informational injustice, and interpersonal injustice compared to informational injustice.

Additionally, when examining the responses to the more global justice perceptions assessed by the POJ, athletes reported perceiving more organizational (team) injustice (M = 2.63, SD = 1.32) than individual injustice (M = 1.45, SD = 1.19). This difference was significant t (117) = -13.65, $p < .001$.

Research Question 2

Research question 2 asked which, if any, cognitive and behavioral response mechanisms were utilized by athletes to restore a sense of balance in the exchange relationship. In order to measure the possible response options athletes might use when perceiving injustice, the

participants were provided with the hypothetical situation of receiving less playing time than a player not putting in as much effort. Based upon this situation, descriptive statistics demonstrated that athletes were most likely to cognitively respond to the situation (cognitive adjustments and changing the comparative standard; $M = 4.30$, $SD = .85$) and would be less likely to behaviorally respond (withdrawal, decreasing effort, advocating/talking to the coach; $M = 2.55$, $SD = .76$). This difference in the two broad categories was significant $t\ (97) = -14.01$, $p < .001$.

A repeated measures ANOVA was then used to determine that the differences between the means of the five more specific response types were statistically significant $F(3.18, 304.78) = 88.38$, $p < .001$. When broken down by individual response type, athletes reported that they would most likely cognitively adjust their perceptions of the situation ($M = 4.56$, $SD = .1.30$), followed closely by advocating or talking to their coach ($M = 4.46$, $SD = 1.69$), changing the comparative standard ($M = 3.96$, $SD = 1.69$), and withdrawal ($M = 2.25$, $SD = 1.08$). Athletes reported they are the least likely to respond to injustice by decreasing their efforts ($M = 1.89$, $SD = .94$). Paired Samples T-tests were then used to determine whether any mean differences in response types were statistically significant. All mean differences in response types were statistically significant ($p < .05$) with the exception of the relationship between the means of cognitive adjustment and advocating/talking to the coach.

Research Question 3

Research question 3 assessed the relative experience of each type of injustice, allowing for the examination of the relationships between types of injustice and response types. To analyze Research Question 3, a correlational analysis was used to examine relationships among the four types of justice (distributive, procedural, interpersonal, and informational) and the

responses to injustice, which were further be broken down into the five possible response options (decreasing efforts, cognitive adjustment, withdrawal, changing the comparative standard, and advocating/talking to the coach). This test was used to analyze the direction and strength of the relationships between each individual type of injustice and each possible response.

As shown in Table 2, distributive injustice was significantly positively related to withdrawal. Procedural injustice was significantly positively related to decreasing effort (r =.26) and withdrawal, significantly negatively related to cognitive adjustments and advocating/talking to the coach, and not significantly related to changing the comparative standard. Interpersonal injustice was significantly positively related to decreasing effort and withdrawal, significantly negatively related to cognitive adjustments and not significantly related to changing the comparative standard or advocating/talking to the coach. Informational injustice was significantly positively related to decreasing efforts and withdrawal, significantly negatively related to cognitive adjustment and advocating/talking to the coach, and not significantly related to changing the comparative standard. Based upon the presence and strength of the correlations, one can expect that as the perception of any type of injustice increases, higher levels of athlete withdrawal are likely. Additionally, as perceptions of procedural and informational injustice increases, athletes are more likely to decrease their efforts and less likely to use cognitive adjustments or advocate/talk to their coach. Perceptions of interpersonal injustice are also related to an athlete decreasing effort and being less likely to cognitively adjust.

Hypothesis 1

To maintain consistency when analyzing the data and because this study is largely exploratory, hypotheses measuring perceptions of injustice have been analyzed and will be

discussed in two ways: as an overall score of injustice (Perceived Overall Justice Scale; POJ; Ambrose & Schminke, 2009) and as individual measures of injustice conceptualized as distributive injustice, procedural injustice, interpersonal injustice, and informational injustice (Colquitt, 2001 adapted by Czekanski, 2012).

Hypothesis 1 proposed that athletes who reported experiences of injustice as changeable would be more likely to actively respond than those athletes who perceived the injustice situation to be unchangeable (i.e. out of their control). Data for this hypothesis was gathered from the situation-specific questions in which athletes had to describe in their own words a situation in which they experienced injustice, answer a question regarding the changeability of the situation, and then describe how they responded to the injustice. Participant's descriptions of how they responded to the injustice situation were coded and grouped into three main categories: Passive coping (stated that they did not respond, cognitive adjustment, changing the comparative standard, and withdrawal), active coping (changing/adjusting effort and advocating/talking to the coach), and other (other or multiple responses). The "other" option within the other category was mainly composed of athletes stating they spoke with someone other than their head coach (e.g. teammate, athletic director). Changeability was also viewed in two ways, as seven individual scores and as two overall scores of unchangeable (1-3) and changeable (5-7).

In examining the descriptive statistics, when participants were asked how they responded to their personal experiences of injustice, they reported using more passive strategies (42.6%) than behavioral strategies (29.6%). Additionally, the majority of respondents reported that they viewed the unjust situation as unchangeable (1-3: 59.4%), compared to changeable (5-7: 21.7%). Hypothesis 1 was analyzed using a chi squared test of independence to examine if there was an association between the participant's perceptions of changeability score and their categorized

scores for their reported responses to injustice. This hypothesis was not supported. There was no significant association between the responses of individuals who reported perceptions of changeability as low versus high, $\chi 2$ (4, N = 54) = 1.82, $p > .05$.

Hypothesis 2a & 2b.

Hypothesis 2 proposed that athlete's perceptions of injustice would relate to their a) psychological health and b) perceptions of team cohesion. Specifically, I hypothesized that athletes who perceived injustice on their athletic teams would report higher levels of psychological strain and decreased levels of perceived team cohesion than athletes who did not perceive injustice on their athletic teams (lower levels of injustice). Hypothesis 2a and 2b were analyzed using a series of multiple regression analyses. The first set of models testing Hypothesis 2a examined injustice as predictors of psychological health (assessed as sleep problems, stress, and depressive symptoms). These results are summarized in Table 3. Hypothesis 2a was only partially supported. When assessing justice as individual dimensions, none of the four types of injustice significantly predicted sleeping problems, stress, or depressive symptoms. However, when measuring injustice as an overall score, injustice was found to be a significant positive predictor of stress such that as overall injustice perceptions increase, stress levels also increase ($B = .22$ $p < .05$). The overall injustice score was also found to be a significant positive predictor of depressive symptoms such that as injustice increased, depressive symptoms also increased ($B = .18$, $p < .05$). Injustice was not found to be a significant predictor of sleeping troubles. These results suggest that when injustice was viewed as one overall construct, athletes who perceived injustice reported higher levels of stress and depressive symptoms.

Table 3. Effects of Injustice on Individual Psychological Health

	Psychological Health					
	Stress		Depressive Symptoms		Sleeping Troubles	
Variable	*B*	*SE B*	*B*	*SE B*	*B*	*SE B*
Predictors						
Distributive Injustice	-.24	.16	.09	.14	-.06	.18
Procedural Injustice	-.05	.21	-.26	.18	-.18	.24
Interpersonal Injustice	.28	.16	.27	.14	.20	.18
Informational Injustice	.15	.18	.10	.16	.03	.20
R^2	.10		.06		.03	
Perceived Overall Injustice	.23 *	.09	.18 *	.08	.05	.11
R^2	.07		.06		.00	

Note. $N = 78$, * $p < .05$. ** $p < .01$

The second set of models examined the measures of injustice as predictors of team cohesion (measured as the four subscales; ATG Social, ATG Task, GI Social, GI Task). Specially, Hypothesis 2b stated that athletes who perceived injustice would report decreased levels of perceived team cohesion. These results are summarized in Table 4. Hypothesis 2b was also partially supported. In regard to the individual types of injustice, procedural injustice was a significant negative predictor of ATG- Social ($B = -.75$, $p < .05$) and procedural injustice predicting GI-Task approached significance ($B = -.67$, $p = .07$). Informational injustice was a significant negative predictor of ATG-Task ($B = -.87$, $p < .05$) and interestingly, interpersonal injustice was also a significant predictor of ATG-Task, however in a positive direction ($B = .55$,

$p < .05$). Distributive injustice was also significant positive predictor of GI-Task ($B = .61$, $p < .05$). No specific types of injustice significantly predicted GI-Social.

In regard to the perceptions of overall injustice, POJ significantly negatively predicted ATG-Social ($B = -.49$, $p < .05$), ATG-Task ($B = -.78$, $p < .05$), and GI-Task ($B = -.52$, $p < .05$). The overall injustice score did not significantly predict GI-Social. These results suggest that perceptions of all types of injustice impact cohesion in some way and that when viewed as an overall construct, perceptions of injustice do relate to decreases in the perceptions of some types of team cohesion, particularly those concerning one's personal attraction to the group and task-oriented cohesion.

Table 4. Effects of Injustice on Team Cohesion

Table 4
Effects of Injustice on Team Cohesion

	Team Cohesion							
	ATG- Task		ATG - Social		GI- Task		GI - Social	
Variable	*B*	*SE B*	*B*	*SE B*	*B*	*SE B*	*B*	*SE B*
Predictors								
Distributive Injustice	-.10	.25	.17	.25	.61 *	.26	.21	.28
Procedural Injustice	-.47	.35	-.75 *	.35	-.67	.36	-.31	.39
Interpersonal Injustice	.55 *	.28	.30	.28	.10	.29	.33	.31
Informational Injustice	-.87 *	.31	-.14	.30	-.32	.32	-.37	.34
R^2	.26		.12		.12		.04	
Perceived Overall Injustice	-.78 *		-.49 *		-.52 *		-0.2	
R^2	.21		.10		.11		.02	

Note. $N = 78$, * $p < .05$. ** $p < .01$

Hypothesis 3a & 3b.

Hypothesis 3 stated that an athlete's response to injustice will be related to a) psychological health and b) team cohesion. Again, psychological health was studied as three

separate outcomes of sleeping troubles, stress, and depressive symptoms. Team cohesion was also studied as four separate outcomes (ATG Social, ATG Task, GI Social, GI Task). Both Hypotheses 3a and 3b were analyzed using a series of multiple regression analyses. Hypothesis 3a, which stated that an athlete's response to injustice will be related to psychological well-being, was partially supported. None of the response types were a significant predictor of stress. However, withdrawal was a significant positive predictor of sleeping troubles (B = .31, p <.05). This association also positively approached significance for cognitive adjustments predicting sleeping troubles (B = .18, p = .06). Withdrawal was also a significant positive predictor of depressive symptoms (B = .22, p <.05). These results suggest that certain types of responses may have an impact on individual well-being. Specifically, athletes who choose to withdraw or just try to change their thinking may experience a decrease in well-being in the forms of increased sleeping troubles or increased depressive symptoms. These results are summarized in Table 5.

Table 5. Effects of Response Type on Individual Psychological Health

	Psychological Health					
	Stress		Depressive Symptoms		Sleeping Troubles	
Variable	*B*	*SE B*	*B*	*SE B*	*B*	*SE B*
Predictors						
Decrasing Effort	.12	.13	.05	.11	-.04	.14
Cognitive Adjustment	-.03	.09	.03	.08	.18	.10
Withdrawal	.08	.12	.22 *	.10	.31 *	.13
Comparative Standard	.04	.08	-.02	.07	-.07	.08
Advocating/Talking to Coach	.00	.06	-.01	.05	.06	.06
R^2	.06		.10		.10	

Note. N = 78, * p < .05. ** p < .01

Hypothesis 3b, which stated that an athlete's response to injustice would be related to team cohesion, was partially supported. The response types of decreasing effort (B = -.42) and withdrawal (B = -.58) significantly negatively predicted ATG-Social ($p < .05$), while cognitive adjustments predicting ATG-Social cohesion approached significance in a positive direction (B = .23). Decreasing effort negatively predicted ATG-Task (B= -.46, p = .055) and GI-Social (B = -.45, $p < .05$). Cognitive adjustments positively predicted GI-Task (B = .31, $p < .05$). These results suggest that certain types of responses may have an impact on an individual's perceptions of team cohesion. In general, reducing effort or withdrawing is likely to harm cohesion while reframing may protect cohesion. Complete results from this analysis are summarized in Table 6.

Table 6. Effects of Response Type on Team Cohesion

	Team Cohesion							
	ATG- Task		ATG - Social		GI- Task		GI - Social	
Variable	*B*	*SE B*	*B*	*SE B*	*B*	*SE B*	*B*	*SE B*
Predictors								
Decrasing Effort	-.46 *	.22	-.42 *	.18	-.25	.22	-.45 *	.22
Cognitive Adjustment	.23	.14	.23	.12	.31 *	.15	.07	.15
Withdrawal	-.38	.20	-.58 **	.16	-.18	.20	-.32	.20
Comparative Standard	-.16	.12	-.08	.10	-.19	.11	-.13	.12
Advocating/Talking to Coach	.10	.10	-.10	.08	-.03	.10	-.11	.10
R^2	.31		.46		.12		.04	

Note. N = 78, * $p < .05$. ** $p < .01$

Research Question 4a & 4b.

Research Questions 4a and 4b built off of Hypothesis 3a/b and asked if the types of responses that an athlete would be likely to utilize had on influence on the relationship between injustice and the outcomes of cohesion (four dimensions) and psychological health (three

dimensions). For this set of analyses, responses to injustice were gathered from the quantitative section of the survey that asked participants to report how they would respond to the hypothetical situation of receiving less playing time than a teammate even though they believe they are putting in more effort. For simplicity, quantitative responses to injustice were converted into a categorical variable for moderated analysis, where each participant was classified according to the response type they rated with the highest frequency. The POJ measure was also used instead of the separate justice dimensions.

An ANCOVA was conducted in SPSS to determine if tendencies to use one response over the other exacerbated or buffered the effects of injustice on psychological health and cohesion outcomes. When examining the relationships between total perceived organizational justice (POJ) and the outcomes of cohesion (four subscales) and well-being (three subscales) controlling for response type, it was determined that there were no significant interactions or main effects.

It was probable that the small sample size within the individual response to injustice categories was what prevented finding significant interactions, as three of the five response options had quite small sample sizes (adjusting effort, N = 3; withdrawal, N = 2; comparative standard, N =15). Therefore, a decision was made to compare the top two most frequently reported responses, which after initial categorization, made up 74% of total reported responses to injustice. Of the two most common responses, the first was cognitive (cognitive adjustments; N = 26, M = 3.40, SD = 1.05) and the second was behavioral (advocating/talking to the coach; N = 32, M = 3.48, SD = .81).

Research Question 4a asked if an athlete's response to injustice moderated the relationship between perceived injustice and athlete psychological health An ANCOVA was

used to look for main effects and interactions between perceived injustice, highest reported response type (cognitive adjustments and advocating/talking to the coach) and the three dimensions of well-being. There was a significant main effect of response type (F (1,54) =5.34, p <.05), as well as a significant interaction between response type and injustice (F (1,54) = 5.36, p < .05) when predicting sleep troubles. After splitting the file, multiple regression analyses revealed that there was a significant positive relationship between injustice and sleep troubles for those whose primary response was advocating/talking to the coach (B =. 57, p < .05), but the effect was not significant for those who used cognitive adjustments. There was also a significant main effect of response type (F (1,54) = 4.38, p < .05) and injustice (F (1,54) =14.81, p < .05) and a significant interaction when predicting stress (F (1,54) = 4.13, p < .05). In considering the nature of the interaction, there was a significant positive relationship between injustice and stress for those who chose to advocate/talk to the coach (B = .81, p < .05); however, the relationship was not significant for those who chose to cognitively adjust. In examining the outcome of depressive symptoms, there was a significant main effect of injustice (F (1,54) =1.09, p < .05), but no significant interaction. These results suggest that response type can have an impact on athlete health following perceptions of injustice. Specifically, an athlete who chooses to respond by advocating/talking to their coach after perceiving injustice is significantly more likely to have increased sleep troubles and increased stress.

Research Question 4b asked if an athlete's response to injustice moderates the relationship between perceived injustice and team cohesion. An ANCOVA was again used to look for main effects and interactions between perceived injustice, response type (focusing on cognitive adjustments and advocating/talking to the coach) and the four dimensions of team cohesion. There were no significant effects for ATG-Social. There was a significant main effect

of injustice on ATG -Task (F (1,54) = .36, $p < .05$), but no significant interaction. In regard to GI-Social, the interaction between response type and injustice approaches significance ($p = .06$). There was a significant negative relationship between injustice and GI-Social when responding by advocating/talking to the coach ($B = -1.00$, $p < .05$), but no significant relationship for the response of cognitive adjustment. In examining the outcome of GI-Task, there was a significant main effect of injustice ($p < .05$), but no significant interaction.

These results suggest that the effects of injustice on cohesion may depend on whether the individual responds by advocating/talking to the coach. Using this response after perceiving injustice may significantly negatively affect individual perceptions of GI- Social cohesion on an athletic team. However, this effect was only marginal and should be interpreted with caution.

CHAPTER IV

DISCUSSION AND CONCLUSION

The purpose of the present study was to examine perceptions of injustice on collegiate athletic teams. Specifically, the types of injustice perceived, how athletes responded, and the impact of these perceptions and responses on individual well-being and team cohesion. The following sections provide a discussion of the results, theoretical and practical implications, as well as limitations of this study and possible future directions for research.

Research Question 1

Based upon the results from Research Question 1, athletes experienced all four forms of injustice as described by the model of organizational justice (Colquitt, 2001). The occurrence of injustice, however, seems relatively low, since the largest mean score was 2.59 out of a possible 6. Additionally, all of the means fell between 2.59 and 2.18, suggesting that not only was the prevalence of the forms of injustice rather low, there also was not a large difference in the types of injustice perceived, though the magnitude was large enough to reach statistical significance. Athletes reported perceiving procedural injustice the most, which concerns the perceptions of equity with respect to the procedures used to determine outcomes, and interpersonal injustice the least, which concerns how the individual is treated in terms of respect in the exchange relationship. There were only significant mean differences between half of the pairs of variables,

suggesting that not all forms of injustice were experienced all that much more than another. Therefore, there may not be a lot of added value in looking at them individually.

In regard to results from the POJ questionnaire, athletes reported perceiving more team injustice than individual injustice. This suggests that often times it was likely multiple individuals on the team who were not treated fairly, as opposed to only the single individual player. This potential explanation could also help explain, as noted later, why some forms of injustice may increase some forms of cohesion if all players are experiencing similar circumstances.

Research Question 2

The purpose of Research Question 2 was to attempt to determine which of the five response options proposed by Adams athletes used when they perceived injustice. Results of Research Question 2 were specifically interesting because to the authors knowledge there had not been another study that measured responses to injustice based upon Adam's five proposed response options. Additionally, there was a lack of in-depth exploration within the current literature applying these responses to see if they had practical value and could be truly differentiated, especially within the context of athletics.

After completing the factor analysis to examine the underlying structure of the newly developed items and determine if there was a true distinction between each of the five different response categories, the items did not perfectly align with the categories defined by Adams. Of the five original categories, three remained in full (cognitive adjustments, changing the comparative standard, withdrawal) and two were slightly modified, decreasing effort and advocating/talking to the coach. Based upon these results, this study suggests that Adam's five

responses to injustice are generally appropriate to use in an athletic setting but may require slight modifications to fit the context. Alternatively, the need for modifications could mean that these categories make theoretical sense but are not distinguished by those actually experiencing the injustice in an athletic setting. However, results do demonstrate that the use of all of the forms of responses to injustice, with the exception of one pair, are significantly different from one another. Therefore, athletes may tend to have a distinguishable response style when faced with injustice.

Of all five possible response options, athletes reported that they would be most likely to use cognitive adjustments, followed by advocating/talking to their coach, changing their comparative standard, withdrawal and finally decreasing effort. Cognitively adjusting their perception of the situation is a low effort and low risk way to cope with an unjust situation. It is possible that while decreasing effort seems like a way to demonstrate disagreement or show resistance to the situation, athletes may not feel as if it would be a productive way to handle the situation in the hopes of resolving it and therefore are unlikely to use it. It is also useful to note that the item on this scale with the highest mean was "I would try increase the amount of effort I put forth in practice in hopes of getting more playing time" (M = 6.31). This was a reverse coded item in the decreasing effort category. The popularity of this item may suggest that decreasing effort was the lowest reported response because athletes would feel the more effective response would be the complete opposite and instead increase effort. Because active approaches are more common when an individual feels they have the ability to change a situation, a result such as this may also suggest that in the hypothetical situation players felt they would have had the control to change the situation and if they increased their effort it was likely to lead to more playing time.

This strategy may be used in combination with a cognitive strategy to rebalance the relationship and cope with the unjust situation.

Research Question 3

Research Question 3 assessed the relative experience of each type of injustice, allowing for the examination of the relationships between each type of injustice and each response type. The correlations between these variables present interesting findings. Of the significant relationships, all behavioral strategies, with the exception of advocating/talking to the coach, were positively related to the forms of injustice. Withdrawal was the only type of response that was significantly related to each form of injustice. This suggests that regardless of the type of injustice perceived, any perception of unfairness was related to players being more likely to respond by withdrawing from their team in ways such as spending less time participating in team activities, being less involved with the team, and possibly even quitting the team.

Interestingly, advocating/talking to the coach was the only behavioral response that had a negative relationship with injustice, specifically procedural, interpersonal and informational. As perceptions of injustice increased, players were less likely to advocate to and talk with their coach about their concerns. A possible explanation is that there may have been a lack of trust between players and their coaches, or a breach of the trust that was previously there, as past literature has found a positive significant relationship between forms of justice and trust in the coach (Czekanski, 2012).

In some exploratory analyses looking into this relationship between injustice and advocating/talking to the coach, role proved to be a significant moderator in the relationship. When perceptions of injustice were low, those players with larger roles more frequently said they

would choose to advocate/talk with their coaches. When perceptions of injustice were high, players were less likely to say they would communicate with their coach, regardless of their role on the team. It is plausible that players with larger roles on the team lost trust in their coaches when they perceived injustice. The simple slopes more specifically suggested this, where the steepest negative slope between injustice and advocating to the coach was for players who were high contributors. Interestingly, even when perceptions of injustice were low, those players with the lowest roles were much less likely to communicate with their coaches. A possible explanation is that even when low-role players perceive their team to be fair, they do not feel comfortable or desire to communicate with their coach. This may also suggest that those players with higher roles on the team have a stronger relationship to the coach. The relationship between role on the team and trust would be a relevant area of future research on this topic.

Of the two cognitive response strategies, only cognitive adjustment had a significant relationship with any of the forms of injustice. Specifically, procedural, interpersonal, and informational injustice had significant negative relationships with cognitive adjustments such that as higher perceptions of these forms of injustice were associated with fewer reports of cognitive adjustment. As rationale for this finding, it is possible that when reporting how they would to respond to the hypothetical situation that was given before they answered the response questions, the athletes felt as if the situation sounded relatively controllable. Therefore, they would be more likely to respond behaviorally, rather than cognitively.

Hypothesis 1

Hypothesis 1 proposed that an athlete's perception of the changeability of an unjust situation would affect whether they would respond behaviorally or cognitively. This hypothesis

was not supported. The non-significant relationship was surprising based upon the amount of research that suggested that coping patterns differed greatly between encounters that subjects appraised as having to be accepted versus those they appraised as changeable. For example, past literatures states that in encounters that individuals perceive to be changeable, they are more likely to use coping strategies that kept them focused on the situation (i.e. active, e.g. confronted, did planful problem solving, accepted responsibility, and selectively attended to the positive aspects of the encounter). When individuals appraise encounters as having to be accepted or as unchangeable, they tend to turn to forms of coping that distract them from the troubling situation (i.e. cognitive response; e.g. distancing and escape-avoidance; Folkman, Lazarus, Dunkel-Schetter, et al., 1986).

To test multiple options, perceived changeability was analyzed in two ways; as the seven possible scores for changeability and as low (responses 1-3) and high (responses 5-7) scores. Neither way of analyzing changeability produced a significant relationship. This lack of association is most likely due to the small sample size (N = 54, where 15 responses could not be clearly categorized in qualitative coding) which limited the statistical power. Future research on this topic would be beneficial with a larger sample size and/or possibly having participants choose from a list of possible response categories and asking them to provide qualitative explanations as a form of additional data.

It is interesting to note based upon these results that while changing the comparative standard was the third most popular response reported in the quantitative section, it was not reported by a single participant in the qualitative section as a response they used when asked to describe their response to their own injustice experience. Possible explanations for this include participants not even being aware that they were responding in this way, or because they had not

really considered it to be a coping strategy. In attempting to gather response data in the future, researchers should consider using examples, as that may be the best way to gather accurate responses, since it may be difficult for individuals to accurately describe that type of response in their own words. The reasoning may also be more straightforward, simply that participants did not report it because although that may be the response they would have used in the hypothetical situation, it may not have been the way they actually responded to their own personal experience of injustice.

Hypothesis 2a & 2b.

Hypothesis 2a and 2b proposed that athlete perceptions of injustice would negatively predict their individual psychological well-being and perceptions of team cohesion. The first set of models testing Hypothesis 2a examined injustice as predictors of individual psychological health (assessed as sleep problems, stress, and depressive symptoms). While there were no significant relationships when examining each type of injustice individually, when looking at perceived overall injustice there were significant positive relationships between POJ and both stress and depressive symptoms, but not sleeping troubles. These results are consistent with previous literature on organizations in which evidence has found that work stress was associated with psychological health, such as high levels of both anxiety and depression (Caplan, 1975). Unlike other organizational research that has found that individuals who perceive specific forms of injustice (interpersonal, information, procedural, and distributive) reporter higher degrees of strain than those who do not (Francis & Barling, 2005), the present study did not find any connections between the individual forms of injustice and psychological health. These findings

may suggest a more global view of injustice could be a more accurate indicator of fairness-related stressors among college athletes.

The second set of models examined the measures of injustice as predictors of team cohesion (measured as the four subscales; ATG Social, ATG Task, GI Social, GI Task). All forms of injustice impacted cohesion in some way. Perceptions of procedural injustice were related to a decrease in ATG-Social and informational injustice was related to a decrease in ATG -Task. Perceptions of interpersonal injustice were actually related to an increase in ATG -Task and distributive injustice also was related to an increase in GI-Task. This suggests that certain forms of injustice may actually cause members of the team to perceive higher levels of task cohesion. In regard to interpersonal treatment, it may be that experiencing poor treatment from the coach actually tightens the bond amongst players (i.e. adversity together) and makes them more united in reaching a goal (Bastian, Jetten, Thai, & Steffens, 2018). Overall, a player's commitment to a team goal may be strong enough that poor treatment from a coach or not receiving desired outcomes does not negatively impact a player's desire to accomplish a team goal, but instead strengthens it. Despite individual treatment or outcomes, players may still feel an affinity for the team in regard to reaching goals and completing tasks. While it would be unethical to suggest that coaches use interpersonal and/or distributive injustice to elicit stronger goal orientation, it does speak to the power that setting strong goals can have on a team and also the value of strong commitment to those goals.

Results do suggest that when injustice is considered as an overall construct, it does negatively impact ATG-Social, ATG-Task, and GI-Task, suggesting that injustice overall is going to negatively impact athlete perceptions of task and social cohesion on the team and that there are better ways to unite and motivate teams than unfair treatment.

Hypothesis 3a & 3b.

Hypothesis 3a and 3b proposed that an athlete's response to injustice would be related to their individual psychological health and perceptions of team cohesion. Both hypotheses were partially supported, as not all individual response options predicted psychological health symptoms and/or cohesion. In regard to psychological health, response type was not a significant predictor of stress, however withdrawal did significantly predict increased sleeping troubles and depressive symptoms. Cognitive adjustment also approached significance in a positive direction predicting sleeping troubles. These findings suggest that withdrawal as a particular form of behavioral coping has a negative effect on individuals wellbeing. Withdrawal is an active behavior, but it could also be viewed as an avoidant behavior used to remove oneself from the situation to prevent confronting it. This aligns with the idea that avoiding the situation could harm psychological well-being. Based upon this insight, this finding is generally consistent with past literature suggesting that individuals who reported more avoidance coping tended to experience decreased levels of psychological well-being, while those who report more approach coping strategies experienced increased levels of psychological well-being (Wilkinson et al., 2000). Further rationale may be that demonstrating a withdrawal response can be an isolating way to respond to the unjust situation, possibly limiting time with friends and decreasing social support, all leading to increased psychological distress.

Hypothesis 3b proposed that an athlete's response to injustice would be related to perceived cohesion. The response of decreasing effort appeared to have the most impact on team cohesion. Decreasing effort significantly negatively impacted ATG-Social, ATG-Task, and GI-Social. This relationship makes logical sense that when players perceived others not trying as hard, they may have developed unfavorable feelings which would hurt both social attraction to

the team and their ability to be unified in completing a task. Withdrawal also significantly negatively impacted ATG-Social, which also makes intuitive sense. Withdrawal is composed of behaviors such as decreasing involvement in the team and decreasing participation in team activities, both of which would have be likely to lead to decreases in social cohesion because a player would no longer be actively engaging with their teammates. The response of cognitive adjustment approached significance in a positive direction predicting ATG-Social and was a significant positive predictor of GI-Task. This suggests that responding by cognitively adjusting helps individuals cope with the injustice situation in a way that leads to increased bonding within the group as a whole as it relates to achieving the group goal (GI-Task). These results are interesting because to the authors knowledge, the effects of specific response type on cohesion has not been studied previously in an athletic setting.

Research Question 4a & 4b.

Research Questions 4a and 4b expanded on Hypothesis 3 to ask if the effects of injustice on the outcomes of psychological health and cohesion depended on the response type used by the individual. After examining the relationships using the five response categories and all variables, it was determined that there were no significant interactions. Due to the small samples sizes the analyses were restricted to the two most common highest rated responses, these being cognitive adjustments and advocating/talking to the coach.

After making this adjustment, in regard to Research Question 4a, which examined the outcome of psychological health, results established that as injustice increased, sleeping troubles also increased when an athlete chose to respond by advocating/talking to their coach. Similar results were found when predicting the other psychological health dimension of stress, however

no significant relationships were present when predicting depressive symptoms. These results suggest that the type of response to injustice, specifically advocating/talking to the coach, does have negative implications for the athlete's individual psychological well-being. The negative psychological symptoms that occur when athletes use this specific response may be due to the player not receiving a positive response from their coach or simply having a poor interaction overall. While there is a variety of research supports the idea that problem-focused coping (i.e. behavioral or approach) positively predicts well-being and those individuals who utilize active coping styles are more likely to experience lower stress levels (Anthony, 2008), in the case of this study it may be that problem-focused can actually lead to increased distress because it encourages the active confrontation of the stressful situation and an orientation toward the threatening material (Roth & Cohen, 1986).

It may also be that after speaking with their coach, the player began to believe that they did not have the ability to change the situation. Folkman (1984) suggested that in situations where the environmental stressor can be altered, problem-focused coping strategies are more likely to be used to maintain psychological well-being, however, in situations that are perceived as unchangeable (Roth & Cohen, 1986). It can also lead to hopelessness if the attempts to remedy the situation are unsuccessful. This information provides useful insight into possible justifications for the positive relationship between injustice and stress and sleep problems when an approach response is used.

The response of cognitive adjustments was not a significant predictor of any type of psychological health, so beneficial inferences can still be made. Results suggested that people who chose to cognitively adjust following an unjust situation did not experience the same degree of negative effects on their stress levels and sleep as those who chose to respond by

advocating/talking to their coach. Past research indicates that coping strategies focused on managing emotions are not as beneficial to well-being as taking action to address a stressor (Chao, 2011), however there is also research that states emotion-focused (cognitive) coping can be beneficial in lessening the negative impacts that stressful events can have on individual well-being (Baker & Berenbaum, 2007). Additionally, this coping style can provide insight into a stressful situation and help an individual believe that the stressor is not something to be feared. It may even enable them to find positive meaning in the ongoing stressful event (Baker & Berenbaum, 2007) and can help to reduce stress and prevent anxiety from becoming crippling and overwhelming. This past research lends support to the low degree of impact of injustice on levels of stress and sleeping troubles reported by participates who used cognitive strategies in this study.

Just as changeability of the situation likely played a role in behavioral responses, it also is an important component for the implications of cognitive responses. Research has shown that when a stressor is seen as uncontrollable, acceptance of the problem may be proactive (Gustems-Carnicer & Calderón, 2013). In the case of this study, it may be that participants perceived the unjust situation as unchangeable and therefore chose to use a cognitive approach to help regulate their emotions and in turn experienced less negative psychological effects. Although, even in instances when the situation is perceived as unchangeable, the initial reduction in stress or anxiety may not be beneficial if there is no eventual attempt to resolve the situation and eliminate the source of stress (Roth & Cohen, 1986). Therefore, while cognitive responses such as cognitive adjustments may be effective in the short term, they are usually not sustainable to maintain well-being over time if the unjust experience persists. Future research could use a

longitudinal design in evaluating the effects of certain responses over time on individual well-being.

Research Question 4b asked if an athlete's response to injustice moderated the relationship between perceived injustice and team cohesion. Of the four dimensions of cohesion the only significant relationship was between injustice and GI-Social for those individuals who chose to respond by advocating or talking to the coach. This relationship was negative and suggested that higher levels of injustice predicted lower levels of GI-Social when participants advocated/talked to their coach. GI – Social is the individual's attraction to the group as a whole, specifically the extent to which the group is unified, as it pertains to the individual's general orientation toward developing and maintaining social relationships with the group. When an athlete perceives injustice and responds by advocating/talking to their coach, their attraction to the group in maintaining social relationships decreases. A possible explanation for these negative effect on social cohesion may be due to the perception that other players on the team had of the individual speaking with the coach about an unfair situation. It is possible that other athletes became upset when they found out the player was discussing a problem with the coach. That disdain may then have been communicated in one way or another to the athlete, causing decreases in the player's desire to maintain social relationships with their teammates.

On the other hand, cognitive adjustments in no way harmed perceptions of social or task cohesion on the team. It's reasonable to suggest that athletes who were able to cognitively adjust their mindset regarding the unjust situation were able to deter it from affected their relationship with other players or their orientation towards the goals of the team. It is also possible that if the player could identity that the source of the injustice was not their teammates, this may have enabled them to sustain a more positive relationship with the other players, or at least avoid

negative perceptions. Specifically, if the source of injustice was determined to be the coach, that may have the potential to unite the team and even increase team cohesion overall (Bastian et al., 2018). While this study demonstrated no negative effects of using cognitive responses on team cohesion, it would be interesting to see if these effects were sustained over a period of time.

Implications

Theoretical. One goal of this study was to assess the utility of examining injustice as four separate constructs within an athletic setting. When assessing the prevalence of each form of injustice, there were significant differences between all of the forms. However, when using the separate dimensions of justice in the regression models predicting psychological health and cohesion, the individual subscales were not significant predictors, yet the more global measure of justice was. There could be a variety of explanations for this. It may be the case that these individual subscales are better applied to an organizational setting. It is also possible that the different forms of injustice are often experienced together, since the means were in similar ranges, despite being significant different. The dimensions in isolation might not be as realistic to study within an athletic setting as there does not seem to be a lot of added value in looking at them individually. Ultimately, the findings suggest that a more global, overall measure of injustice may be more appropriate to measuring perceived injustice as well as possibly being a more accurate indicator of fairness-related stressors among college athletes.

There was also lack of in-depth exploration within the current literature applying the theoretical responses to injustice to an athletic setting to see if they had practical value and could be truly differentiated. Because this study found that athletes' reported responses to injustice did not fit neatly into Adams' model, it may be that these categories make theoretical sense,

however, must be adapted slightly to fit the context of an athletic setting. It may also be that more testing needs to be done on developing questions to assess each.

Practical Guidance for Coaches. Athletes experienced all four forms of injustice, of which the most commonly reported was procedural. Based upon this information, coaches should reassess the procedures they are using to determine outcomes. Coaches often play a big role in establishing the processes that determine the outputs received by athletes, and can lessen disappointment, negative feelings, and perceptions of injustice by ensuring that these processes are viewed fairly. While procedural injustice was reported the most, all forms of injustice were still being experienced. This suggests that coaches should think carefully about how they are interacting with athletes as it pertains not only to procedural injustice, but to all four forms of injustice. For example, they should evaluate if they are providing enough information about how decisions are being made on the team (informational), if they are treating all players with the same levels of respect (interpersonal) regardless of their role on the team, and if they are distributing outcomes fairly (distributive). Further support for coaches making this a priority on their teams is that overall perceptions of injustice have negative implications for athletes' stress level and quality of sleep, which could also affect their athletic performance.

Additionally, all four forms of injustice demonstrated a positive relationship with withdrawal. This means that as experiences of all forms of perceived injustice increased, players were more likely to respond by withdrawing from their teams. As this study demonstrated, withdrawal behavioral can have a variety of negative effects on individual well-being and team social cohesion. This demonstrates another reason why coaches should focus on ensuring their athletes perceive them as being as fair as possible. Coaches may also want to be sensitive in

noticing players that are beginning to distance themselves from the team. Early intervention could help to understand the potential injustice experienced and how to support the player.

Advocating/talking to the coach was the only behavioral response that had a negative relationship with injustice. This negative relationship was consistent even across the various roles players reported having. Even players who reported having an above average role on the team still reported being less likely to communicate with the coach after perceptions of injustice and this likelihood was especially low for players who reported below average role on the team. Based upon guidance from past research it may be that players felt a breach of trust between themselves and their coach following injustice. Therefore, it is important that coaches make establishing trust with their players a priority and work consciously to improve any broken trust in those relationships. That way even if player perceive injustice, they still feel comfortable talking with the coach about it. The relationship between role on the team and trust would be a relevant area of future research as it pertains to the topic of injustice.

Advocating/talking to the coach after perceiving injustice also predicted decreases in individual well-being (increased sleeping troubles and stress) and social team cohesion. For these reasons, coaches need to take into consideration that the ways that they are communicating with their athletes and addressing their concerns could potentially impact not only their relationships with other players on the team but their individual health.

Limitations

Aside from the various limitations already described during the discussion portion of the paper, there are a few other limitations that are worth mentioning or further expanding on. General limitations included lack of diversity in the sport that participants reported playing.

Additionally, recruiting participants was in large part a challenge for this study. About 50% of the emails requesting to have the survey distributed were sent shortly before final exams and winter break, a time when students had other more pressing school priorities and may not have been as willing to complete the survey. It also proved difficult to receive responses from universities contacted to distribute the survey. Additionally, there was no incentive offered to student athletes to complete the survey, which may have been a demotivating factor.

One of the biggest limitations to this study was the small sample size. The small sample limited the ability to examine possible control variables that may have added value to further explaining the results. Additionally, due to sample size restrictions we were only able to effectively examine the moderating relationship of two of the five possible categories for response options to injustice. It was also difficult to analyze perceived changeability because of low response rates to both that question and the qualitative questions regarding responses used to personal experiences of injustice.

The data in this study was also all self-report data which may be seen as a limitation due to honesty and differing interpretation of the questions. However, because injustice is perceptual in nature, it may be the most logical way to address these questions. The use of the survey, however, may have limited the detail that was provided in the qualitative responses. The lack of reporting certain responses in the qualitative section of the survey may be due to individuals not even realizing they were participating in certain coping strategies, causing them to not report them. The athletes may have also simply been tired of responding and not encouraged to provide detail or reflect in depth on their experiences. Future research may find that providing examples to individuals of the different types of responses when collecting self-report data might lead to gathering more comprehensive information about the ways athletes actually respond to

experiences of injustice. It may also be a possibility for future researchers to provide premade responses options and have participants select one, while also including the option to also add their own responses. Alternatively, interview or focus group formats may provide the opportunity for probing questions to gather more in-depth information. These alternative strategies could all be useful alternatives instead of solely relying on self-reported answers.

Another limitation to the study was the inability to do extensive testing on the created items for the responses to injustice scale. While a pilot study conducted in which individuals categorized the items into one of the five categories, further testing should be completed to further validate those items or create new items that are more representative of the response options model.

The fact that responses to injustice were gathered based upon a hypothetical injustice situation provided to participants might also serve as a limitation to the study. Reported responses were not necessarily based upon the ways they actually responded to the injustice, but instead how they would respond in that specific hypothetical situation. Additionally, the hypothetical injustice situation proposed to participants related most closely to distributive injustice. Therefore, this question may have been more beneficial for understanding responses to perceptions of distributive justice. Future research could attempt to identify ways to measure responses to overall perceptions of injustice, such as creating a different scenario, not using a scenario at all, or using multiple scenarios as examples where different forms of the four types of injustice are predominantly manipulated.

One final future direction worth suggesting is further exploring the relationship that perceptions of changeability have on athlete response choice. While this study was unsuccessful in finding significance in that relationship, other explanations within the study, as well as past

research, do suggest a relationship between those two variables and it would be worth exploring more directly within the context of an athletic setting.

Conclusion

By taking both a quantitative and qualitative approach to this largely exploratory study of injustice perceptions on athletic teams, the present data provided useful insight into many of the hypotheses and research questions. This study was beneficial in better understanding injustice perceptions, responses, and outcomes within the context of collegiate athletic team while also helping to fill the current gap in the literature that exists in regard to the utility and direct applicability of equity and justice theories within an athletic context. Overall the results can be utilized by the coaches of collegiate athletic teams in better understanding the role that they play in impacting their athletes and it is the hope that coaches can use this information to positively impact the athlete experience.

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APPENDIX A

IRB APPROVAL LETTER

THE UNIVERSITY OF TENNESSEE CHATTANOOGA

Institutional Review Board
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TO: Linsey Klein **IRB # 19-124**
Dr. Kristen Black

FROM: Lindsay Pardue, Director of Research Integrity
Dr. Amy Doolittle, IRB Committee Chair

DATE: 9/25/2019

SUBJECT: IRB #19-124: Perceptions of the Intercollegiate Student-Athlete Experience

Thank you for submitting your application for exemption to The University of Tennessee at Chattanooga Institutional Review Board. Your proposal was evaluated in light of the federal regulations that govern the protection of human subjects.

Specifically, 45 CFR 46.104(d) identifies studies that are exempt from IRB oversight. The UTC IRB Chairperson or his/her designee has determined that your proposed project falls within the category described in the following subsection of this policy:

46.104(d)(2)(i): Research only includes educational tests, surveys, interviews, public observation and recorded information cannot readily identify the subject (directly or indirectly/linked)

Even though your project is exempt from further IRB review, the research must be conducted according to the proposal submitted to the UTC IRB. If changes to the approved protocol occur, a revised protocol must be reviewed and approved by the IRB before implementation. For any proposed changes in your research protocol, please submit an Application for Changes, Annual Review, or Project Termination/Completion form to the UTC IRB. Please be aware that changes to the research protocol may prevent the research from qualifying for exempt review and require submission of a new IRB application or other materials to the UTC IRB.

A goal of the IRB is to prevent negative occurrences during any research study. However, despite our best intent, unforeseen circumstances or events may arise during the research. If an unexpected situation or adverse event happens during your investigation, please notify the UTC IRB as soon as possible. Once notified, we will ask for a complete explanation of the event and your response. Other actions also may be required depending on the nature of the event.

Please refer to the protocol number denoted above in all communication or correspondence related to your application and this approval.

For additional information, please consult our web page http://www.utc.edu/irb or email instrb@utc.edu.

Best wishes for a successful research project.

APPENDIX B

INFORMED CONSENT FORM

Student Athlete Experience

Please read this consent document carefully before you decide to participate in this

study. Purpose of the research study:
This is a research study designed to contribute to general knowledge. This study is being conducted by Linsey Klein, a graduate student in the Industrial- Organizational Psychology program at The University of Tennessee at Chattanooga. This research is being conducted under the supervision of Dr. Kristen Black. The purpose of this study is to examine athlete perceptions of their athletic experiences at their current university, including coach-athlete interactions, team perceptions, and individual athlete well-being. You have been asked to participate in this study because you are currently participating in a collegiate sport at an institution within the United States.

What you will be asked to do in the study:
If you agree to participate in this study, you will be asked to respond to an internet-based survey. This survey includes questions regarding your perceptions of your collegiate athletic experience at your current institution and your individual well-being. Several demographic questions are also included so that the characteristics of the final sample can be accurately described.

Time required:
This survey will take no longer than 30 minutes to complete.

Risks and Benefits:
The risks of this study are limited to the potential inconvenience of taking the survey. If you feel uncomfortable with a question in the survey, you can skip it. You can also withdraw from the study at any time. If you find that answering any questions about your well-being reveal a stress or emotional problem that is interfering with your daily life, please contact your campus counseling center.
By participating you have the potential benefit of contributing to the growing base of knowledge regarding the collegiate athlete experience and helping researchers to better understand how collegiate athletes function within and are impacted by their athletic participation during college.

Confidentiality:
Your participation in this research will be anonymous. All data you do provide through this survey will be securely gathered and stored in encrypted and password protected files accessible only
by the researchers listed below. No specific names or identifying information be collected, and the individual responses in general will never be shared with other persons not involved with this research. The results of the study will be used for research purposes only. Group-level (not personally identified) results from the study will be presented in educational settings and at professional conferences, and the results may be published in a professional journal in the field of psychology.

Voluntary participation:
You will be excluded from the study if you are younger than 18. Your participation in this study is completely voluntary. Should you elect to discontinue participation, any information already collected will be discarded. There is no penalty or loss of benefit for choosing not to participate.

Right to withdraw from the study:
You have the right to withdraw from the study at any time without consequence or penalty.

Whom to contact if you have questions about the study:
Linsey Klein: whq632@mocs.utc.edu
Dr. Kristen Black: kristen-j-black@utc.edu, (423) 425-5479
If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you may contact Dr. Amy Doolittle, Chair of the UTC Institutional Review Board at (423) 425-5563. This research protocol has been approved by the UTC Institutional Review Board. Additional contact information is available at www.utc.edu/irb.

Agreement:
By clicking "Next" you agree that you have read the preceding information and are willing to participate fully in this research.

Thank you very much for your time and support. Please start with the survey now by clicking on the Next button below.

APPENDIX C

COPY OF SURVEY

Student Athlete Experience

Please read this consent document carefully before you decide to participate in this study.

Purpose of the research study:
This is a research study designed to contribute to general knowledge. This study is being conducted by Linsey Klein, a graduate student in the Industrial- Organizational Psychology program at The University of Tennessee at Chattanooga. This research is being conducted under the supervision of Dr. Kristen Black. The purpose of this study is to examine athlete perceptions of their athletic experiences at their current university, including coach-athlete interactions, team perceptions, and individual athlete well-being. You have been asked to participate in this study because you are currently participating in a collegiate sport at an institution within the United States.

What you will be asked to do in the study:
If you agree to participate in this study, you will be asked to respond to an internet-based survey. This survey includes questions regarding your perceptions of your collegiate athletic experience at your current institution and your individual well-being. Several demographic questions are also included so that the characteristics of the final sample can be accurately described.

Time required:
This survey will take no longer than 30 minutes to complete.

Risks and Benefits:
The risks of this study are limited to the potential inconvenience of taking the survey. If you feel uncomfortable with a question in the survey, you can skip it. You can also withdraw from the study at any time. If you find that answering any questions about your well-being reveal a stress or emotional problem that is interfering with your daily life, please contact your campus counseling center.
By participating you have the potential benefit of contributing to the growing base of knowledge regarding the collegiate athlete experience and helping researchers to better understand how collegiate athletes function within and are impacted by their athletic participation during college.

Confidentiality:
Your participation in this research will be anonymous. All data you do provide through this survey will be securely gathered and stored in encrypted and password protected files accessible only by the researchers listed below. No specific names or identifying information be collected, and the individual responses in general will never be shared with other persons not involved with this research. The results of the study will be used for research purposes only. Group-level (not personally identified) results from the study will be presented in educational settings and at professional conferences, and the results may be published in a professional journal in the field of psychology.

Voluntary participation:
You will be excluded from the study if you are younger than 18. Your participation in this study is completely voluntary. Should you elect to discontinue participation, any information already collected will be discarded. There is no penalty or loss of benefit for choosing not to participate.

Right to withdraw from the study:
You have the right to withdraw from the study at any time without consequence or penalty.

Whom to contact if you have questions about the study:
Linsey Klein: whq632@mocs.utc.edu
Dr. Kristen Black: kristen-j-black@utc.edu, (423) 425-5479
If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you may contact Dr. Amy Doolittle, Chair of the UTC Institutional Review Board at (423) 425-5563. This research protocol has been approved by the UTC Institutional Review Board. Additional contact information is available at www.utc.edu/irb.

Agreement:
By clicking "Next" you agree that you have read the preceding information and are willing to participate fully in this research.

Thank you very much for your time and support. Please start with the survey now by clicking on the Next button below.

On a scale of 1 to 5 (1 = Limited Contributor and 5 = Major Contributor) how would you define your role on your current team?

“Role on your team” may be defined by the extent to which you contribute to the overall team. For example, things such as the amount of playing time you receive, your responsibilities on the team (i.e. team captain), and your assigned field position.

	1- Limited Contributor	2	3	4	5- Major Contributor
How would you define your role on your current team?					

In thinking about your role on your current athletic team, please rate the extent to which you agree with following statements using the scale provided.

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
My role on the team reflects my contribution.	○	○	○	○	○	○
The process used to establish my role on the team has been applied consistently.	○	○	○	○	○	○
My coach's expectations of me within my team role are reasonable.	○	○	○	○	○	○
My coach treats me with respect.	○	○	○	○	○	○
I have been given the chance to appeal decisions made about my role on the team.	○	○	○	○	○	○

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
My coach refrains from making improper comments.	○	○	○	○	○	○
I have been able to express my views during the process of establishing my role on the team.	○	○	○	○	○	○
My role on the team is appropriate for the work I have completed.	○	○	○	○	○	○
My coach treats me with dignity.	○	○	○	○	○	○
My coach has been open with his/her communication with me.	○	○	○	○	○	○

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
My role on the team reflects the effort I exert.	○	○	○	○	○	○
My coach has explained the team procedures thoroughly.	○	○	○	○	○	○
I have been able to express my feelings during the process of establishing my role on the team.	○	○	○	○	○	○
My coach treats me in a polite manner.	○	○	○	○	○	○
My role on the team is justified given my performance.	○	○	○	○	○	○

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
My coach has communicated details in a timely manner.	○	○	○	○	○	○
The process used to define my role on the team has been free of bias.	○	○	○	○	○	○

Please rate the extent to which you agree with the following statements on the scale provided.

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
In general, I can count on my coach to be fair.	◯	◯	◯	◯	◯	◯	◯
In general, the treatment I received on this team is fair.	◯	◯	◯	◯	◯	◯	◯
Usually, the way things work on this team are not fair.	◯	◯	◯	◯	◯	◯	◯
Most of the players on this team would say they are often treated unfairly.	◯	◯	◯	◯	◯	◯	◯
Overall, I'm treated fairly by my coach.	◯	◯	◯	◯	◯	◯	◯

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
For the most part, this team treats its players fairly.	◯	◯	◯	◯	◯	◯	◯

When answering the previous questions referencing your coach, who were you most thinking about?

- ◯ Head Coach
- ◯ A different coach you work with frequently

This section of the survey is going to ask how you would respond to a certain situation on your team.

Imagine this scenario: On your current athletic team, you tend to compare yourself to your teammate, Alex. You start to realize that you put in just as much effort as Alex, but you are not receiving the same amount of playing time.

After considering the above situation, please rate the following statements based on how you would respond to that situation on the scale provided.

	Very Unlikely	Unlikely	Somewhat Unlikely	Neither Unlikely Nor Likely	Somewhat Likely	Likely	Very Likely
I would compare my abilities to a different teammate.	◯	◯	◯	◯	◯	◯	◯
I wouldn't put as much effort into the team.	◯	◯	◯	◯	◯	◯	◯
I would try increase the amount of effort I put forth in practice in hopes of getting more playing time.	◯	◯	◯	◯	◯	◯	◯

	Very Unlikely	Unlikely	Somewhat Unlikely	Neither Unlikely Nor Likely	Somewhat Likely	Likely	Very Likely
I would compare myself to someone else on another team at a similar institution instead.	◯	◯	◯	◯	◯	◯	◯
I would spend less time participating in team activities.	◯	◯	◯	◯	◯	◯	◯

	Very Unlikely	Unlikely	Somewhat Unlikely	Neither Unlikely Nor Likely	Somewhat Likely	Likely	Very Likely
I would stop spending time with my time.	◯	◯	◯	◯	◯	◯	◯
I would focus on being thankful to be a member of the team.	◯	◯	◯	◯	◯	◯	◯
I would change the way I think about the situation.	◯	◯	◯	◯	◯	◯	◯
I would reevaluate my own skills/abilities in regard to how much playing time I am getting.	◯	◯	◯	◯	◯	◯	◯
I would stop putting in work outside of practice.	◯	◯	◯	◯	◯	◯	◯

	Very Unlikely	Unlikely	Somewhat Unlikely	Neither Unlikely Nor Likely	Somewhat Likely	Likely	Very Likely
I would decrease the time that I am involved with the team.	◯	◯	◯	◯	◯	◯	◯
I would speak to my coach about receiving more playing time.	◯	◯	◯	◯	◯	◯	◯
I would change my thinking to be appreciative that I am a member of the team, regardless of my playing time.	◯	◯	◯	◯	◯	◯	◯
I would quit my team.	◯	◯	◯	◯	◯	◯	◯
I would make a case to my coach about why I deserve more playing time for my effort.	◯	◯	◯	◯	◯	◯	◯

	Very Unlikely	Unlikely	Somewhat Unlikely	Neither Unlikely Nor Likely	Somewhat Likely	Likely	Very Likely
I would compare the amount of playing time I am receiving to a different player on the team.	◯	◯	◯	◯	◯	◯	◯
I would focus on other benefits of being on the team that are important to me, rather than just playing time.	◯	◯	◯	◯	◯	◯	◯
I would put in more work on my own time to improve my skills.	◯	◯	◯	◯	◯	◯	◯
I would decrease my efforts in practice.	◯	◯	◯	◯	◯	◯	◯
I would change my thinking to be appreciative about the amount of playing time I am receiving.	◯	◯	◯	◯	◯	◯	◯

	Very Unlikely	Unlikely	Somewhat Unlikely	Neither Unlikely Nor Likely	Somewhat Likely	Likely	Very Likely
	Very Unlikely	Unlikely	Somewhat Unlikely	Neither Unlikely Nor Likely	Somewhat Likely	Likely	Very Likely
I would decrease my efforts to reflect the amount of playing time I am getting.	◯	◯	◯	◯	◯	◯	◯

This section of the survey is going to ask about perceptions of your team.

Please rate each of the following statements on the scale provided.

	Strongly Disagree								Strongly Agree
	1	2	3	4	5	6	7	8	9
Members of our team would rather go out on their own than get together as a team.	◯	◯	◯	◯	◯	◯	◯	◯	◯
I do not enjoy being a part of the social activities of this team.	◯	◯	◯	◯	◯	◯	◯	◯	◯
Some of my best friends are on this team.	◯	◯	◯	◯	◯	◯	◯	◯	◯
I'm not happy with the amount of playing time I get.	◯	◯	◯	◯	◯	◯	◯	◯	◯
Our team is united in trying to reach its goals for performance.	◯	◯	◯	◯	◯	◯	◯	◯	◯

	Strongly Disagree								Strongly Agree
	1	2	3	4	5	6	7	8	9
Members of our team do not stick together outside of practice and games.	◯	◯	◯	◯	◯	◯	◯	◯	◯
For me, this team is one of the most important social groups to which I belong.	◯	◯	◯	◯	◯	◯	◯	◯	◯
I enjoy other parties rather than team parties.	◯	◯	◯	◯	◯	◯	◯	◯	◯
Our team would like to spend time together in the off season.	◯	◯	◯	◯	◯	◯	◯	◯	◯
Our team members have conflicting aspirations for the team's performance.	◯	◯	◯	◯	◯	◯	◯	◯	◯

	Strongly Disagree								Strongly Agree
	1	2	3	4	5	6	7	8	9
I am not going to miss the members of this team when the season ends.	◯	◯	◯	◯	◯	◯	◯	◯	◯
If members of our team have problems in practice, everyone wants to help them so we can get back together again.	◯	◯	◯	◯	◯	◯	◯	◯	◯
I do not like the style of play on this team.	◯	◯	◯	◯	◯	◯	◯	◯	◯
Our team members do not communicate freely about each athlete's responsibilities during competition or practice.	◯	◯	◯	◯	◯	◯	◯	◯	◯

	Strongly Disagree								Strongly Agree
	1	2	3	4	5	6	7	8	9
We all take responsibility for a loss or poor performance by our team.	○	○	○	○	○	○	○	○	○

	Strongly Disagree								Strongly Agree
	1	2	3	4	5	6	7	8	9
This team does not give me enough opportunities to improve my personal performance.	○	○	○	○	○	○	○	○	○
Our team members rarely party together.	○	○	○	○	○	○	○	○	○
I'm unhappy with my team's level of desire to win.	○	○	○	○	○	○	○	○	○

This section of the survey is about how you have been during the last 4 weeks.

Please rate how often you have experienced the following based on the scale provided.

	Not at all	A small part of the time	Part of the time	A large part of the time	All of the time
How often have you lacked interest in everyday things?	○	○	○	○	○
How often have you felt sad?	○	○	○	○	○
How often have you lacked self-confidence?	○	○	○	○	○
How often have you had problems relaxing?	○	○	○	○	○
How often have you woken up several times and found it difficult to get back to sleep?	○	○	○	○	○

	Not at all	A small part of the time	Part of the time	A large part of the time	All of the time
How often have you had a bad conscience or felt guilty?	○	○	○	○	○
How often have you been irritable?	○	○	○	○	○
How often have you woken up too early and not been able to get back to sleep?	○	○	○	○	○
How often have you found it hard to go to sleep?	○	○	○	○	○
How often have you slept badly and restlessly?	○	○	○	○	○

	Not at all	A small part of the time	Part of the time	A large part of the time	All of the time
How often have you been tense?	○	○	○	○	○
How often have you been stressed?	○	○	○	○	○

The following questions ask you to describe your personal experiences as a member of your current team in your own words.

Please describe a specific instance of injustice (unfairness) that you have experienced on your current athletic team. Please use as much detail as possible/necessary.

How changeable did you feel this specific situation was? In other words, how much control did you feel you had over your ability to influence/change the unfair situation?

	1- Not at all changeable	2	3	4	5	6	7 - Very changeab…
Changeability							

Please describe how you responded to the unfair situation in your own words. (What did you do to deal with/solve the problem, if anything?)

This section of the survey will ask you basic questions about yourself and your participation in your sport.

How old are you?

What is your athletic year in school?

- ◯ Freshman
- ◯ Sophomore
- ◯ Junior

- ◯ Senior

What is your academic year in school?

- ◯ Freshman
- ◯ Sophomore
- ◯ Junior
- ◯ Senior
- ◯ Graduate Student

What division does your sport play in?

- ◯ NCAA Division I
- ◯ NCAA Division II
- ◯ NCAA Division III
- ◯ NAIA
- ◯ NJCAA

What sport do you participate in? (If you play more than one, please list the one that you are currently active in).

Approximately how many players are on your current team?

- ◯ 1-10
- ◯ 11-20
- ◯ 21-30
- ◯ 31+

How many years have you played for your current head coach?

- ◯ Less than a year
- ◯ 1 year
- ◯ 2 years
- ◯ 3 years
- ◯ 4 years
- ◯ More than 4 years

Do you primarily work with your head coach or a different coach?

- ◯ Head coach
- ◯ Different coach

What race or ethnicity do you identify as?

- ◯ White
- ◯ Black or African-American
- ◯ American Indian or Alaskan Native
- ◯ Asian
- ◯ Native Hawaiian or other Pacific islander
- ◯ Multi-ethnic/multi-racial
- ◯ Other

What is your gender?

- ◯ Male
- ◯ Female
- ◯ Transgender Male
- ◯ Transgender Female
- ◯ I do not identify on the gender binary
- ◯ Gender fluid

- ◯ Other

How many years have you been a member of your current athletic team?

- ◯ One
- ◯ Two
- ◯ Three
- ◯ Four
- ◯ Five
- ◯ Six

Did you receive an athletic scholarship to play on your current team?

- ◯ Yes
- ◯ No

What is the total number of years that you've been playing the sport?

- ◯ 1-5
- ◯ 6-10
- ◯ 11-15
- ◯ 16+

Select the option that describes your status at your current university:

- ◯ In-State (from the state my university is located in)
- ◯ Out-of-State (from a different state within the U.S.)
- ◯ International Student

VITA

Linsey Klein was born in St. Louis, MO, to the parents of Terry and Christine Klein. She is the second of two children, an older sister. She attended Kennerly Elementary and continued to Lindbergh High School in St. Louis, MO. After graduation she attended Fontbonne University where she became interested in business and psychology. Linsey completed a Bachelor of Science degree in May 2018 in Business Management and Leadership with a minor in Psychology. After graduation, Linsey accepted a position in the Industrial-Organizational Psychology Master's Program at The University of Tennessee at Chattanooga. She graduated with her Master of Science degree in I-O Psychology in May 2020. Linsey will continue pursuing areas of I-O psychology in her future career.