

## *Journal of Issues in* **Intercollegiate Athletics**

### **Just Exchange in Intercollegiate Athletics**

---

**W. Andrew Czekanski**

*Coastal Carolina University*

**Brian A. Turner**

*The Ohio State University*

---

*The purpose of this study was to explore student-athlete perceptions of organizational justice and social exchange relationships in intercollegiate athletics. Using student-athletes at a large, Midwestern university, 149 usable surveys were collected that spoke to student-athletes' perceptions and attitudes towards their head coach. Within the instrument, four factors of organizational justice were measured (i.e., distributive, procedure, interpersonal, and informational), along with the trust student-athletes had in their coach, and the quality of the exchange relationship (i.e., leader-member exchange). Structural equation modeling (SEM) showed student-athletes' perceptions of procedural, interpersonal, and informational justice all had positive significant relationships with the trust they had in their coach. Finally, trust in the coach was found to have a positive significant relationship with the student-athletes' perceptions of the quality of exchange relationships. A good fitting model was then established showing procedural, interpersonal, and informational justice operate through trust to affect student-athletes' perceptions of the quality of exchange with coaches. Thus, coaches wanting to establish high quality relationships, and garner the positive results that may be brought by such relationships (e.g., increased performance, higher levels of commitment, lower intentions to leave, etc.), should act in a just manner to build trust.*

*Keywords: organizational justice, social exchange theory, structural equation modeling*

Over the years, the exploration and investigation into organizational justice has led to an increased understanding of the construct in the context of business (Greenberg, 1990) and sport (Mahony, Hums, Andrew, & Dittmore, 2010). In business, scholars have applied organizational justice to multiple industries, establishing a plethora of causal pathways tying justice principles to multiple variables (e.g., organizational citizen behavior, individual behavior, intent to leave, etc.; Greenberg, 1990). However, within sport literature, Mahony et al. (2010) suggested “a considerable amount is still unknown about the relationship among... dimensions of organizational justice and various outcome variables” (p. 100). Furthermore, Mahony and colleagues noted most justice factors (i.e., interpersonal, informational, and procedural justice) have only been studied sparingly in the sport context. As a result, a gap in sport organizational justice literature has formed. More specifically, a disparity between the field’s understanding of distributive, interpersonal, informational, and procedural justice can be found. Furthermore, extensive literature on justice factors and their outcomes is wanting.

These gaps become more evident when reviewing specific context areas in sport. For example, within college sport the subject of distributive justice has been oft studied (e.g., Hums & Chelladurai, 1994a, 1994b; Mahony & Pastore, 1998; Mahony, Riemer, Breeding, & Hums, 2006) while the study of procedural, interpersonal, and information justice is minute. Additionally, scholarship in college athletics has done well to look at the factors affecting distributive justice perceptions (e.g., Hums & Chelladurai, 1994b; Mahony & Pastore, 1998), while falling short in the examination of outcomes.

One means of addressing such gaps is through the use of a strong theoretical background that allows for the study of justice factors and outcome variables simultaneously. Thus, given the theory of organizational justice stems in part from the Social Exchange Theory (SET), scholars may look to the SET as a means to study multiple justice factors and outcomes concurrently. Centered on the formation, evaluation, and outcomes of relationships, the SET states individuals interact with one another due to the desire to receive a specific outcome from an interaction (Homans, 1961). Once the outcome is received, it is evaluated by the individual as a means to determine if it is just and in accordance with their contribution to the relationship (Blau, 1964; Homans, 1961). This evaluation determines if the relationship will continue (Blau, 1964). Such a process of evaluating the outcomes based on the contribution to a relationship serves as one of the basic principles of organizational justice thus establishing a strong tie between theories.

In sport management literature, scholars (e.g., Nikbin, Hyun, Iranmanesh, & Foroughi, 2014; Whisenant, 2005; Whisenant & Jordan, 2006; Zhang & Chelladurai, 2013, etc.) used the notion of relationships to study justice and its connection to numerous outcome variables (e.g., team performances, athlete enjoyment of the sport, trust, etc.). While the studies do well to address the gap of understanding organizational justice in sport, they lack theoretical backing in the discussion of relationship development as defined by the SET. Moreover, such studies of the effect of justice on relationships are absent within the college sport setting.

Taking such factors into consideration, the goal of this work was twofold. First, we aimed to address a gap in sport management literature and increase the understanding of interpersonal, informational, and procedural justice, as well as distributive justice, in the context of intercollegiate athletics. Second, we sought to extend scholarship focusing on organizational justice and its link to trust by examining another potential outcome as related to the SET. More

specifically, we addressed how perceptions of organizational justice influence trust and the relationships between intercollegiate coaches and student-athletes.

## Organizational Justice Overview

Since its inception, the construct of organizational justice has been widely studied and extended in multiple directions (Greenberg, 1990). Foundationally, the construct is rooted in two historically well-established justice principles: “fairness of the ends achieved (the *distributive justice* approach)...” and “the fairness of the means used to achieve those ends (the *procedural justice* approach)” (Greenberg, 1990, p. 400).

### *Distributive Justice Approach*

Dating back to distributive justice’s inception, the belief in equality of treatment, as measured by the outcome received from an interaction, has been a reoccurring theme (e.g., Adams, 1963; 1965; Homan, 1961). Though many scholars contributed to the formulation of the construct, throughout the prevailing literature, Adams’s (1963; 1965) equity theory stands as an oft cited cornerstone to present day distributive justice ideologies (Greenberg, 1990; Mahony et al., 2010). Equity theory is based upon apt comparisons of actors (Adams, 1963). Particular importance is placed on the input to outcome comparisons of each actor. Inputs within this manner are any relevant aspect involved and recognized by actors in an exchange (Adams, 1963). Conversely, outcomes are rewards gained by individuals for their actions (Adams, 1963).

The process of comparison is used to establish if the outcomes one actor receives for their input are comparable and equal to the outcomes the other actor receives for their inputs (Adams, 1963). In other words, the actors try to determine if the following representation is upheld:  $\text{Input}_{\text{Person}}/\text{Outcome}_{\text{Person}} = \text{Input}_{\text{Other}}/\text{Outcome}_{\text{Other}}$ . If this equation is sustained and the two sides are seen as being equal, the actors will perceive they are being treated fairly. Conversely, if one side of the equation is less than or greater than the other, the actors will perceive unfair treatment or inequity (Adams, 1963).

### *Procedural Justice Approach*

Procedural justice stemmed from the legal work of Thibaut and Walker who argued the most just procedures are those that afford decision makers maximum amounts of information before disturbing resources and/or punishments to the associated actors (Greenberg, 1990). A prime component of Thibaut and Walker’s (1978) procedural justice model was the belief that justice perceptions were tied to the allocation of control over decisions and control over processes. Systems set to allow voice and a belief in the contribution to the process of determining the ends would thus be seen as having a greater level of justice. Likewise, a system in which the control over a decision was made by a party not affected by the decision would produce the greatest levels of justice.

Leventhal (1980) moved Thibaut and Walker’s work forward by suggesting a more inclusive view of procedural justice. Through the idea of social systems, he introduced what he termed “the cognitive mapping of events” (Leventhal, 1980, p. 18); that is to say, a systematic thought process actors undertake before rewards are distributed as a means to determine fairness.

If such a process resulted in perception of fair procedures, he stated, the outcome would be seen as fair as well.

### *The Progression of Justice Ideologies*

Continual research into distributive and procedural justice found the existence of other forms of organizational justice. More specifically, Robert Bies found interpersonal interactions were used by individuals as a means to determine the justness of recruiting processes (Bies & Shapiro, 1987). Accordingly, a new component of organizational justice was established. Labeled interactional justice (Bies & Moag, 1986), the construct was defined as a judgment of fairness based off “decision maker’s behavior during the enactment of procedures...” (Bies & Shapiro, 1987, p. 201).

Greenberg (1993) later cited Bies and his colleagues’ findings (Bies & Moag, 1986; Bies & Shapiro, 1987, 1988) of the fundamental characteristics of interactional justice (i.e., the interaction of individuals with decision makers and the availability of information for why a decision was made) and claimed each should be treated as its own discrete contributing factor to justice perceptions. These two factors were titled interpersonal and informational justice (Greenberg, 1993). Taken together then, distributive, procedural, interpersonal, and informational justice engendered a four-factor model of organizational justice.

Though some scholars dispute the four-factor approach to organizational justice (e.g., Daly, Williams, O’Conner, & Pouder, 2009; Roch & Shanock, 2006), it appears scholarship has moved towards a greater acceptance of the model. Colquitt’s (2001) use of structural equation modeling (SEM) demonstrated this construction of organizational justice provides the best fitting model. Though work in various contexts still needs to be undertaken to validate (or refute) Colquitt’s findings, until such work is done, the four-factor model appears to be the growing standard used by scholars when examining various aspects of fairness and justice in the workplace (e.g., Jordan, Gillentine, & Hunt, 2004; Judge & Colquitt, 2004; Kernan & Hanges, 2002).

### *Organizational Justice in Sport*

Being unique and outside the realm of much of the previously noted literature, scholars in the field of sport produced multiple models of organizational justice. Hums and Chelladurai (1994a, 1994b) along with Mahony and Pastore (1998) studied perceptions of distributive justice amongst intercollegiate coaches and administrators. They found that while need and equality of treatment were viewed as the most just ways to distribute resources (Hums & Chelladurai, 1994b) these methods were typically not employed when making resource allocation decisions (Mahony & Pastore, 1998). Student-athletes and college students alike were found to share the same perceptions of resource allocation fairness as athletic decision makers (Mahony et al., 2006), as they too ranked need and equality of treatment as the fairest method to allocate resources. Additionally, student-athletes as a whole felt their teams were treated justly (Kim, Andrew, Mahony, & Hums, 2008).

Jordan et al. (2004) expanded the study of justice within sport organizations through conceptualizing justice in terms of the actions of coaches. Citing past scholarship, Jordan et al. (2004) established sport teams and other more tradition organizations share numerous attributes

and further suggested a formal management structure existed within teams. This structuring, which classifies coaches as organizational managers, allows sport teams to be studied within the same manner as other organizations.

Jordan et al. (2004) also discussed coaching as being a composite of two justice dilemmas. The first dilemma notes coaches' motivation to act and make decisions which are just, while the second speaks to communicating these decisions to athletes to ensure they perceive them as such. To balance these components, Jordan et al. suggested four criteria must be considered by coaches: "(1) fairness of outcomes, (2) policies and procedures used to determine the outcomes, (3) interpersonal treatment, and (4) decision justifications" (p. 141). If any of these four conditions were not seen as satisfactory by the team or individual members of the team, the actors might withhold effort, withdraw from others, and/or decrease their degree of communication.

Applying this ideology, Whisenant and colleagues partook in multiple studies of interscholastic student-athletes. Using a three dimensional model of justice (i.e., procedural, distributive, and interpersonal), Whisenant (2005) established all perceptions of justice had a significant relationship with student-athletes intent to continue playing sports. Additionally, examinations of team performances (Colquitt et al., 2001; Whisenant & Jordan, 2006), athlete enjoyment of the sport (Whisenant & Jordan, 2008), and gender (Whisenant & Smucker, 2006) were all undertaken.

## **Social Exchange Theory Overview**

Early classifications of the Social Exchange Theory (SET) described the notion of social exchange at the individual or micro level (Homans, 1961). Accordingly, the theory was defined as "the exchange of activity, tangible or intangible, and more or less rewarding or costly, between at least two persons" (Cook & Rice, 2003, p. 54). In these terms, behaviors of individuals were stated to be a function of the expected payoffs the behavior would bring (Cook & Rice, 2003; Homans, 1961). However, this micro-level explanation of exchange relationships drew criticism for minimizing the significance of organizations and their procedures (Cook & Rice, 2003, p. 54). As such, scholars expanded upon the construct and proposed an individual's actions were the result of the anticipation of gaining rewards for their acts (Blau, 1964).

Central to the expansion of the SET was the work of Blau (1964) who stated, "Social exchange can be observed everywhere... , not only in the market relations but also in friendship and even love..." (p. 88). Operating off such a viewpoint, Blau (1964) built a theoretical scheme around the belief that an individual who has received a good, service, or outcome from another is expected to show appreciation and reciprocate when called upon. Primary to the construction of this social classification became the interplay between actors and the notion of relationships and relationship formation.

### *Trust in Exchange Relationships*

The formation of relationships involves a degree of risk (Kollock, 1994). Accordingly, relationships typically begin with a slight act which serves as a means to abridge the risk (Kollock, 1994). If the act is returned in a manner deemed just, then risk is reduced, trust is built, and subsequent exchanges may take place (Blau, 1964; Kollock, 1994). Continual, repeated, prolonged social exchange relationships are consequently characterized by a high level

of trust brought about by just exchanges between individuals (Kollock, 1994; Molm, Takahashi, & Peterson, 2000). It may be stated then that trust, or the “expectations of benign behavior based on inferences about a partner’s personal traits and intentions” (Molm et al., 2000, p. 1397), is the means through which individuals begin to establish quality exchange relationships.

## Application

Addressing the gap in the study of organizational justice and its effect on relationships in sport, coach student-athlete dyads in intercollegiate athletics serve as a strong contextual setting for scholars. The coach student-athlete dyad meets both Blau (1964) and Homans’s (1961) description of social exchange, and supplies all factors needed for the study of organizational justice and its potential outcomes. More specifically, the degree of exchanges (both on and off the playing field) occurring on a daily basis between student-athletes and coaches allows for student-athletes’ to have adequate experiences to draw on and develop perceptions of justice. These daily interactions also result in the development of varying levels of trust and social exchange relationships. Such relationships consequentially, allow scholars to examine each of the ascribed variables and determine their connection(s) with each other. These factors, when combined with the definitional scheme and past applications of social exchange, make the study of organizational justice and its social exchange outcomes in intercollegiate athletics prime for exploration.

Moving to use the SET as a theoretical background that allows for the study of justice factors and outcome variables simultaneously, Homans’ (1961) micro-level examination of behavioral reinforcement was hypothesized to be the foundation of social exchange relationships between intercollegiate student-athletes and their coaches. Homans (1961) stated interactions between actors are based on an actor’s judgment of the outcome received per their input into the relationships. Such comparisons result in individuals perceiving their exchanges as just or unjust based on whether the outcomes received from the exchange met a preconceived notion of fairness (Blau, 1964; Homans, 1961). The more just actors perceive exchanges, the more likely they are to continue in the exchange relationship (Adams, 1963; Blau, 1964; Homans, 1961). Blau (1964) stated this is due to the reduction of the risk and the subsequent growth of trust in the exchange partner. In other words, just perceptions of an exchange influence the degree of trust actors have in their dyadic partner (Blau, 1964; Homans, 1961).

Within sport, Nikbin et al. (2014) and Zhang and Chelladurai (2013) both studied the connection between justice and trust amongst athletes and their coaches. Zang and Chelladurai’s (2013) studied members of competitive sport clubs and sought to gauge how athletes’ perceptions of their coaches’ justness influenced athletes’ trust (amongst other factors). Using a three item measure for justice (instead of a three or four factor model of justice noted above) they found justice was in fact a predictor of athletes’ perception of trust in their coach. Nikbin et al. (2014) used a more widely accepted three factor model of justice (i.e., distributive, interactional, and procedural) and studied futsal and volleyball players. As with Zang and Chelladurai (2013), they also found all three justice principles had a positive significant relationship with trust.

These works do well to provide a basis to study justice and trust in sport; however, they do not address the uniqueness of the college coach student-athlete relationship. That is to say, within college sport, many student-athletes enter their teams, and thus their relationships with their coaches with preconceived notions of what outcomes may await them. Often time built off

their recruitment, conversations and daily interactions with their coaches, and/or their ideological view of college sport in general, student-athletes seemingly have expectations of what college sport will provide them. For example, some may believe college sport will afford them an opportunity to play professionally, while others view it as a means to gain an education, or even merely as a social function. Regardless, each student brings with them a belief that affords them a means to compare their actual experiences with. As noted above by Blau (1964) and Homans (1961), the comparison of these beliefs and experiences results in varying levels of justice and thus trust. In compliance with past scholarship, the uniqueness of college sport, and the SET, it was hypothesized:

*H1: The greater the degree of justice felt by student-athletes, the greater their trust in their coach.*

Subdividing hypothesis one and recalling the theory of distributive justice as defined by Adams (1963; 1965), it was noted determinations of equity are based off actors' comparisons of inputs and outcomes. Viewing the team as a whole, with the coach serving as the manager and the athletes as employees (Jordan et al., 2004; Sage, 1973), the decisions made by coaches about the role (e.g., playing time, scholarship allotment, position, etc.) of each student-athlete and the effort put in by each student-athlete to obtain said role can be viewed as outcomes and inputs within distributive justice respectfully. Moreover, the presence of multiple student-athletes on a given team and multiple teams within a given university's athletic department provides student-athletes with multiple actors to compare their inputs and outcomes to.

Social exchange ideology suggests these perceptions of just rewards are key in a student-athletes' perceptions of their relationships with their coach. As noted previously, justice perceptions will influence trust (Blau, 1964; Homans, 1961). Student-athletes who believe they are receiving fair roles on the team per their input in comparison to other student-athletes should feel their coach is acting justly and thus should have high levels of trust in their coach. Combining these ideologies we hypothesized:

*H1a: The greater the degree of distributive justice felt by student-athletes, the greater their trust in their coach.*

As Thibaut and Walker (1978) and Leventhal (1980) stated, justice perceptions extend past mere comparisons of actors to one another. Rather, declarations of the justness of an organization include the process used to determine the outcomes (Leventhal, 1980). Within the setting of the coach student-athlete dyad, the student-athlete presumably takes into consideration the procedural rules of their coach when determining their overall perceptions of justice. As suggested by Leventhal (1980), the more consistently a coach applies rules the greater the perceptions of justice. Joined with social exchange ideology, we thus hypothesized:

*H1b: The greater the degree of procedural justice felt by student-athletes, the greater their trust in their coach.*

Not only has the enactment of just procedures been cited in past literature as being vital in overall justice perceptions, but the quality of the interactions between the associated actors has also been noted as a critical subcomponent (Bies & Moag, 1985; Greenberg, 1993). The

interpersonal relationship associated with the coach student-athlete dyad suggests this notion would hold true within intercollegiate athletics. Founded in Jordan et al.'s (2004) work, the coach/student-athlete relationship can be seen to house multiple avenues through which student-athletes and coaches interact. For example, the initial recruitment of a student-athlete, the daily coaching that occurs during practice and in games, and the discussions that occur off the playing field with regard to student-athletes' personal lives can all be noted as being interpersonal interactions. The quality of these interactions, may subsequently be viewed as a determinate of perceptions of justice and thus affect the amount of trust student-athletes have in their coach. Accordingly, we hypothesized:

*H1c: The greater the degree of interpersonal justice felt by student-athletes, the greater their trust in their coach.*

Within the context of intercollegiate athletics, the construct of informational justice may also be raised. As Jordan et al. (2004) stated, the amount and quality of information coaches supply about the enactment of policies and procedures might affect student-athletes' perceptions of justice. Again, social exchange ideology stipulates the better the perception of the quality and quantity of information received the higher the level of trust between the associated actors (Blau, 1964; Homans, 1961). As such we hypothesized:

*H1d: The greater the degree of informational justice felt by student-athletes, the greater their trust in their coach.*

As Blau (1964) noted, trust in a dyadic partner is as a key determinate of the quality of the exchange relationship (Blau, 1964). Kollock (1994) furthered this idea in stating trust in an exchange partner is established when the risk of being involved in an exchange is reduced. Such lessening of risk and growth in trust is believed to be established in college athletics to a degree when the exchanges occurring are perceived as just (see hypothesis 1). This reduction of risk and establishment of trust is hypothesized here to result in higher quality exchanges. More specifically, organizational literature (e.g., Eisenberger, Huntington, Hutchison, & Sowa, 1986; Gerstner & Day, 1997) refers to such exchange relationships in the workplace between employers and employees as leader-member exchange (LMX). Sport literature (e.g., Case, 1998) has adapted this notion and further classified employees as players and employers as coaches (Sage, 1973).

In sport literature, research accounting for the relationship between trust and LMX is rare. A lone example is Jowett's (2003) study of an individual coach-athlete dyad. Within the study, Jowett found that within sport dyadic relationships there existed many of the previously discussed components of organizational LMX. More specifically, she discussed the importance of trust in the establishment of high quality LMX, noting trust is needed between coaches and athletes in order for quality relationships to be built. Following such ideologies it was hypothesized:

*H2: The greater the trust student-athletes have in their coach, the greater the quality of exchange between them and their coach.*



Taking each proposed relationship together, it was hypothesized:

*H3: Student-athletes' perceptions of distributive, procedural, interpersonal, and informational justice influence the quality of the exchange relationship between student-athletes and coaches through the mediator of trust (Figure 1).*

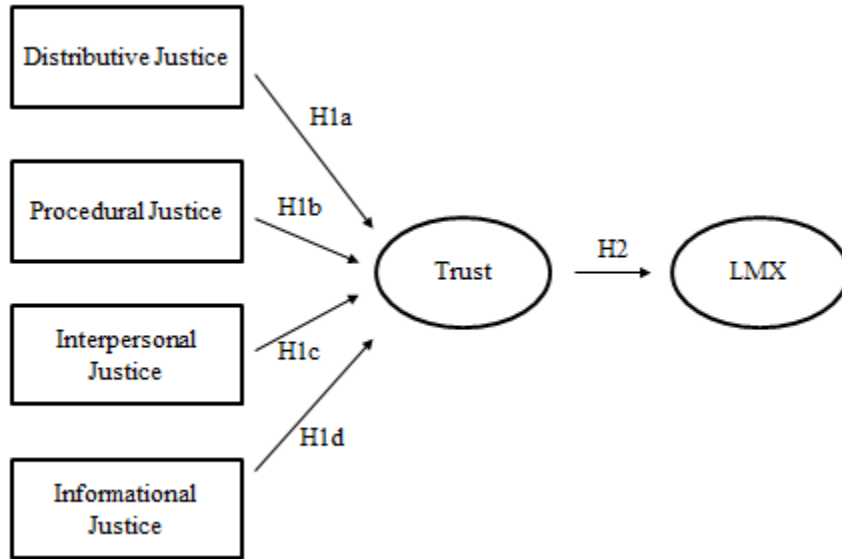


Figure 1. Hypothesized structural model of outcomes of the student-athlete perceptions of organizational justice

## Method

### Procedures

To address the proposed hypotheses a survey was distributed to student-athletes at a large, Midwestern university. The university used was chosen due to the ease of access granted to researchers and the historical difficulty found in reaching and surveying the desired population. As a means to try to reach the population, and in accordance with the institutional review board (IRB), instruments were hand delivered by the researcher to student-athletes at a regularly scheduled weekly team meeting with athletic department representatives. The face to face method was employed as a means to ensure student-athletes of the confidentiality of their responses and answer any questions they might have had. The researcher asked the student-athletes to take the instrument home and complete it away from their coaches to help remove the potential threat of socially desirable responses and help ensure internal validity. The following week, the researcher returned to the team meeting and collected all the completed instruments. To reduce additional threats to internal validity, the same researcher administered the instrument to all student-athletes. Such a process of collecting data from college student-athletes was adapted from the work of Barnhill, Czekanski, and Turner (2010). In total, 615 surveys were distributed and 149 (24.2%) usable surveys were returned.

## *Participants*

Participants were student-athletes at a large, NCAA Division I university located in the Midwest. Demographically, 75 of the respondents were females (49.7%), 68 were males (45.0%), and six individuals (4.0%) chose not to respond. When breaking down the distribution of the sample in regards to their academic year in school, 54 (35.8%) identified themselves as freshman, 33 (21.9%) as sophomores, 27 (17.9%) as juniors, 32 (21.2%) as seniors and three (2.0%) did not respond. Additionally, 31 (20.5%) stated they had received a redshirt at some point during their athletic career. Finally, though IRB precluded respondents from identifying their sport, it may be stated in a broader sense that both individual and team sport athletes participated in the study.

## *Instrumentation*

The questionnaires distributed measured individual student-athletes' overall attitudes and perceptions of multiple constructs linked to organizational justice and social exchange ideologies. These constructs included: (1) distributive justice; (2) procedural justice; (3) interpersonal justice; (4) information justice; (5) leader-member exchange (LMX); and (6) trust.

To measure the four factors of organizational justice (i.e., distributive, procedural, interpersonal, and informational justice), Colquitt's (2001) Justice Measure Items, with established reliability between .90 and .93 (Colquitt & Shaw, 2003), were adapted and used. Colquitt's amalgamation of various scholars' justice principles (i.e., Bies & Moag, 1986; Leventhal, 1976; Shapiro, Buttner, & Barry, 1994; Thibaut & Walker, 1975) into a single instrument produces an ideal composite of items that can be used in multiple contexts (Colquitt, 2001). As such, multiple scholars have looked to the Justice Measure Items to study organizational justice, including many within the realm of sport (e.g., Jordan, Turner, & DuBord, 2007; Jordan, Turner, Fink, & Pastore, 2007; Jordan, Turner, & Pack, 2009).

In the original Justice Measure Items, each proposition was centered on the outcome gained by the individual being surveyed. Within the context of the current study, the outcome the student-athlete experienced was assigned to be the role the student-athlete occupied on their team. To gauge this, student-athletes were asked to evaluate their role on a 6-point Likert-scale, where a score of 1 meant they were a "limited contributor" and a score of 6 meant they were a "major contributor".

Finally, the original Justice Measure Items were judged on a 5-point Likert scale, with anchors of 1 equaling "to a small extent" and 5 equaling "to a large extent" (Colquitt, 2001). In accordance with Summers's (1970) suggestion, this scaling was modified to a 6-point Likert scale due to the fact "attitudes have a directional quality with positive or negative affectations" (p. 2). Thus, the Justice Measure Items used in the study, in addition to all other Likert scaled items used within the instrument to measure attitudes, were modified to be a 6-point Likert scale where a score of 1 equated to strongly disagree and a score of 6 equated to strongly agree.

To measure LMX, or a student-athlete's attitude towards, and perceptions of their relationship with their coach, Scandura and Graen's (1984) LMX 7 was utilized. The LMX 7 has been found to have strong internal reliability ( $\alpha = .92$ ; Hersen, 2004), and thus has been employed for the study of dyadic relationships in numerous sport studies (e.g., Case, 1998; Kent & Chelladurai, 2001). However, for the purpose of the present study, changes were made to the wording of the LMX 7 so the questions better fit the context of the coach student-athlete dyad

(e.g., the term “immediate supervisor” was changed to “coach”). Additionally, the verbiage was modified so all items fit the standardized 6-point Likert scale (i.e., 1 strongly disagree – 6 strongly agree).

To measure student-athletes’ trust in their coach, the items used by Barnhill et al. (2010) to measure student-athlete trust in their coaches were employed. Due to the congruency in the contexts of the two studies, no changes were made to the items, which had established content validity and strong internal reliability ( $\alpha = .81$ ).

### *Validity and Reliability*

Following the development of the instrument and before the questionnaires were distributed to the student-athletes for completion, copies were sent to four experts within the field of Sport Management and two specialists with experience working with student-athletes. Each expert and specialist was asked to review the items and make recommendations for changes. Once all recommendations were received, appropriate changes to the instrument were made thus establishing content and face validity.

After the collection of data, a confirmatory factor analysis (CFA) was run to measure the reliability of the instrument and examine how each question loaded onto the desired construct. Due to the exploratory nature of the research, Hair, Anderson, Tatham, and Black’s (1998) definition of an acceptable factor loading was followed. As such, any item with a factor loading less than .60 was dropped from the instrument due to the lack of variance the item explained. Analysis suggested one item did not load favorably onto its ascribed construct (Table 1). As a result, the item (i.e., “The process used to establish my role on the team has been applied consistently”) was dropped.

Following the exploration of the each item’s loading, the Cronbach’s alpha for each construct was calculated. Cronbach’s alphas scores of .70 or greater showed the measurement of the construct to be reliable, while those falling below the .70 standard suggested an unreliable measure (Hair et al., 1998). Results of this analysis, as shown in Table 1, illustrate each construct was aptly measured.

Table 1

*Mean ( $\mu$ ), standard deviation (S.D), factor loadings ( $\beta$ ) and Cronbach alphas ( $\alpha$ ) for observed variables*

Factor and Item	$\mu$ (S.D.)	$\beta$	$\alpha$
Distributive Justice			.824
My role on the team reflects the effort I exert.	4.08 (1.67)	.756	
My role on the team reflects my contributions to the team.	4.14 (1.54)	.831	
My role on the team is appropriate for the work I have completed.	4.13 (1.56)	.854	
My role on the team is justified given my performance.	4.47 (1.48)	.801	

Procedural Justice			.787
The process used to establish my role on the team has been applied consistently.	4.34 (1.30)		.541*
I have been given the chance to appeal decisions made about my role on the team.	3.33 (1.61)		.688
I have been able to express my views during the process of establishing my role on the team.	4.11 (1.46)		.877
I have been able to express my feelings during the process of establishing my role on the team.	4.02 (1.48)		.821
The process used to define my role on the team has been free of bias.	3.71 (1.61)		.692
Interpersonal Justice			.853
My coach refrains from making improper comments.	3.81 (1.61)		.701
My coach treats me with respect.	4.64 (1.38)		.889
My coach treats me in polite manner.	4.72 (1.25)		.910
My coach treats me with dignity.	4.55 (1.43)		.864
Informational Justice			.737
My coach's expectations of me within my team role are reasonable.	4.80 (1.18)		.642
My coach has explained the team procedures thoroughly.	4.60 (1.48)		.710
My coach has communicated details in a timely manner.	3.95 (1.53)		.797
My coach has been open with his/her communication with me.	4.20 (1.55)		.825
Trust			.795
I believe my coach has a high level of integrity.	4.62 (1.55)		.736
I do not fully trust my coach.	4.51 (1.53)		.853
I can expect my coach to treat me in a consistent fashion.	4.34 (1.48)		.784

My coach is not always honest.	4.67 (1.50)	.774
Leader Member Exchange		.864
I know where I stand with my coach.	4.29 (1.48)	.760
My coach understands my needs.	3.78 (1.56)	.785
I know how satisfied my coach is with what I do.	4.07 (1.50)	.765
I would defend my coach's decisions if he/she were not present to do so.	4.28 (1.34)	.673
My coach understands my problems.	3.62 (1.55)	.809
My coach would use his/her power to help me solve a problem.	4.55 (1.29)	.739
My coach recognizes my potential.	4.75 (1.42)	.658

---

\* Item fell below the .60 threshold and was removed.

### *Data analysis*

In performing the initial data analysis, SPSS Statistics 19 software was used to produce a correlation matrix (Table 2) so the overall fit of the model could be evaluated. Listwise deletion was employed as a means to address the issue of data missing completely at random (MCAR) (Schumacker & Lomax, 2004). The correlation matrix was then entered into LISREL 9.1 software so the proposed relationships and model could be tested using SEM. Within this software, the model was tested using the maximum likelihood method of estimation.

Table 2

*Correlation matrix of observed variables*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. DJ	1														
2. PJ	.625**	1													
3. InterJ	.414**	.526**	1												
4. InfoJ	.508**	.525**	.779**	1											
5. Q40Trust	.241**	.378**	.505**	.434**	1										
6. Q42Trust	.153	.360**	.623**	.498**	.511**	1									
7. Q47Trust	.352**	.485**	.744**	.692**	.459**	.549**	1								
8. Q58Trust	.139	.263**	.558**	.468**	.382**	.592**	.462**	1							
9. Q22LMX	.503**	.557**	.605**	.627**	.299**	.394**	.596**	.415**	1						
10. Q27LMX	.456**	.520**	.634**	.643**	.382**	.608**	.570**	.387**	.592**	1					
11. Q39LMX	.549**	.520**	.473**	.537**	.285**	.377**	.502**	.250**	.633**	.476**	1				
12. Q46LMX	.323**	.429**	.582**	.562**	.425**	.369**	.596**	.431**	.398**	.434**	.358**	1			
13. Q56LMX	.379**	.592**	.549**	.609**	.311**	.487**	.615**	.395**	.536**	.653**	.527**	.464**	1		
14. Q57LMX	.302**	.421**	.642**	.609**	.396**	.460**	.593**	.381**	.382**	.455**	.486**	.480**	.601**	1	
15. Q65LMX	.496**	.440**	.547**	.576**	.322**	.406**	.421**	.426**	.373**	.423**	.474**	.429**	.364**	.437**	1

Note. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\* $p < .001$

Evaluating the proposed model in relation to the overall sample, analysis first centered on assessing Hypothesis 1 and 2. Using SEM, these hypotheses were examined through the analysis of the observed  $t$ -value of each individual parameter (Schumacker & Lomax, 2004). Per Schumacker and Lomax's (2004) recommendation, this form of hypothesis testing should be undertaken within any study involving SEM. It is important to note the rejection of any one hypothesized relationship resulted in the removal of the specific relationship from the overall model. Upon the removal of all rejected hypotheses, the model was rerun in LISREL 9.1 to include the noted changes.

To measure the overall fit of the model and thus evaluate Hypothesis 3, five measures (i.e.,  $\chi^2/df$ , goodness-of-fit (GFI), comparative fit index (CFI), standardized root mean square residual (SRMR) and root mean square error of approximation (RMSEA)) commonly cited within SEM literature were selected and used (Iacobucci, 2010; Schumacker & Lomax, 2004). In employing such an approach, if a three of the five fit indices indicate a good fitting model it may be concluded the overall fit is good (Schumacker & Lomax, 2004).

After the model was run, all suggested changes to improve the fit indices were evaluated in regards to their conceptual relevance to the study. In this respect, only modifications that could be theoretically supported were made. Additionally, only a single change was made to the model at any time. After the individual change to the model was made, the model was reevaluated. Such a process continued until the model fit was acceptable and/or no further modifications were deemed to be theoretically just.

## Results

In relation to the effect of organizational justice on trust, Hypothesis 1a was rejected ( $t = -.34, p = .968$ ), while Hypotheses 1b ( $t = 3.76, p < .001$ ), 1c ( $t = 5.44, p < .001$ ), and 1d ( $t = 4.39, p < .001$ ) all failed to be rejected. Further analysis showed the justice variables accounted for 87.1% of the variation in trust.

Evaluation of Hypothesis 2 found the relationship between trust and LMX to be positive and significant ( $t = 6.53, p < .001$ ). As a result, Hypothesis 2 was validated. Analysis of the relationship showed trust accounted for 96.3% of the variance in LMX. Accordingly, it can be stated the more trust student-athletes had in their coach the greater the quality of exchange.

Due to the rejection of the proposed relationship in Hypothesis 1a, the path from distributive justice to trust was removed leading to a rejection, in part, of Hypothesis 3. Following the removal of the pathway, the proposed model was rerun and Hypothesis 3 was further evaluated to determine if the remaining justice variables operated through trust to influence LMX. The rerunning produced a model in which three of the five fit indices (i.e.,  $\chi^2/df$ , CFI, SRMR) met Iacobucci (2010) and Schumacker and Lomax (1996) standards for a good fitting model ( $\chi^2/df = 2.93$ , CFI = .96, SRMR = .058). Though RMSEA (.114, CI = .096; .132) and GFI (.84) failed to reach .080 and .90 respectfully and indicate a good fit, Schumacker and Lomax (1996) note if a majority of fit indices indicate a good fit, then the model can be said to have a good fit. Thus, with no theoretically justifiable modifications suggested, the model was deemed acceptable (Figure 2) and Hypothesis 3 was partially validated.

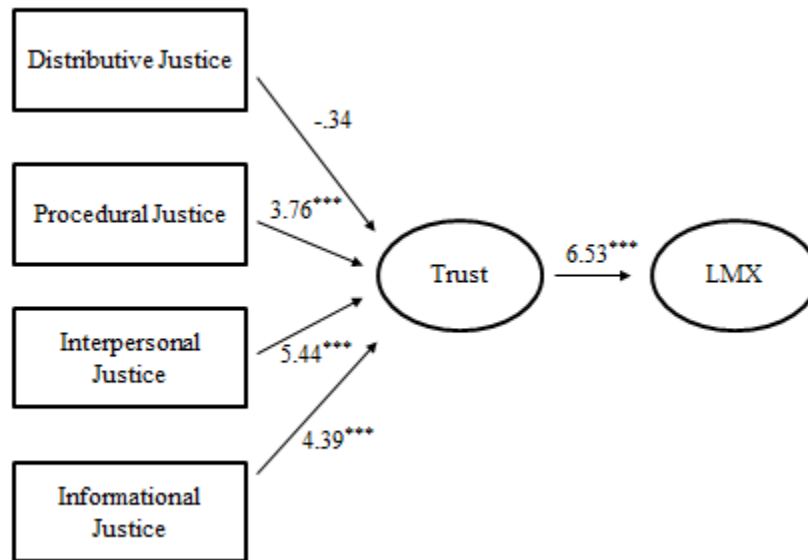


Figure 2. Structural model of outcomes of the student-athlete perceptions of organizational justice (\*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\* $p < .001$ ).

## Discussion

This study sought to continue the exploration of organizational justice within sport, and address gaps Mahony et al. (2010) noted within past sport justice research. More specifically, it concentrated on studying the four factor model of organizational justice and two potential outcomes of the model in intercollegiate athletics. To meet the ascribed goals, the theory of organizational justice was coupled with the SET and a survey was employed to measure the noted variables. The survey was then distributed to a population of student-athletes at a large, Midwestern university.

Analysis of the data collected showed a significant, positive relationship existed between student-athletes' perceptions of procedural, interpersonal, and informational justice and the amount of trust in their coach. However, a non-significant relationship was found between distributed justice and trust. These findings in and of themselves address a gap in the current literature on organizational justice within sport through establishing the degree of importance procedural, interpersonal, and informational justice have on perceptions of student-athletes.

Examining each relationship more thoroughly, the finding that distributive justice was not a significant antecedent to student-athletes' trust in their coach was contrary to social exchange ideology and the findings of Nikbin et al. (2014). The results in the current study suggest the comparison of a student-athlete's role on the team (i.e., the output assigned in the current study) to the effort exerted to obtain their role (e.g., their overall contributions, their work, their performance, etc.) had no influence on the degree of trust student-athletes had in their coach. This lack of relationship opposes Blau's (1964) depiction that just perceptions of outcomes result in high levels of trust. A review of the individual items used to measure distributive justice may offer a degree of insight as to why no relationship was found. That is, the items used to measure distributive justice offered no means for the participant to compare themselves to others (i.e., their teammates). Therefore, the central component to Adams's (1961, 1963) equity theory



might not have been adequately measured, potentially leading to the lack of a relationship between distributive justice and trust. Citing Colquitt (2001), the result found here may follow past contradictions within justice literature brought about due to contradictory and inaccurate measurements.

Furthermore, the non-significant relationship may have resulted from intercollegiate student-athletes feeling they controlled their own outcomes through the effort they exerted, thus removing their coach's influence over the distribution of team roles. In other words, student-athletes might have noted their outcomes (i.e., their role on the team) were more a direct reflection of individual performance and not based on a coach's judgment. Respondents might also enjoy a general belief that their coaches would distribute rewards equitably, leading them to devalue distributive justice and its influence on trust.

Additionally, the variance in results between the present findings and Nikbin et al. (2014) may be due to difference in the studied populations. Since the participants were student-athletes from a large, Division I university, their perceptions of the link between distributive justice and trust might have been influenced by their view of college sport as a whole and thus lead to the conflicting results. That is to say, many of the student-athletes surveyed might view college sport as a means to reach an ends (i.e., a means to reach professional ranks or to obtain a quality education from a well-known university), and thus they might not value how equitable the rewards were distributed. Rather, they may ultimately trust their coach to help them achieve their outcome regardless of how resources and rewards are distributed. However, all these hypothesized explanations fall outside the scope of the current study. Future scholarship seeking to apply justice principles to intercollegiate coach student-athlete dyads should thus closely examine the items used within the instrument, as well as student-athlete perceptions of role determination, while accounting for the confounding variable of student-athlete perceptions of college sport as whole to more aptly measure distributive justice.

While the hypothesized relationship between distributive justice and trust was rejected, all other justice factors were found to have a significant positive relationship with trust. That is, the study found the greater the perceptions of interpersonal, informational, and procedural justice, the greater the level of trust student-athletes had in their coach. Furthermore, student-athletes' perceptions of justice were found to account for 87.1% of the variance in their feelings of trust in their coach. Such findings suggest Blau's (1964) and Homans' (1961) depiction of the evaluation of social exchange relationships and the building of trust holds true within the studied dyadic relationship. Furthermore, the findings uphold Jordan et al.'s (2004) assertions of the influence of just interactions between coaches and athletes.

Finally, Blau's (1964) proposition of the effect of trust on dyads held. Analysis of the relationship between student-athletes' trust in their coach and the quality of the exchange relationship showed the greater the level of trust student-athletes had in their coach, the greater the quality of the exchange. Adding further credence to the interconnected nature of trust and exchange was the fact that trust was found to account for 96.3% of the variance in the quality of the exchange relationship. Hence, an essential component of exchange ideologies was found to hold true within intercollegiate coach student-athlete dyads and Mahony et al.'s (2010) gap in understanding organizational justice outcomes was partly abated.

In addition to the theoretical significance, these findings hold application for practitioners. For example, an examination of the items used to measure the constructs reveals coaches should devise and apply practices allowing student-athletes to express their views and voice their concerns about their role on the team. Any procedures used to determine a student-

athletes' role on the team should also seek to remove any biases coaches may possess. Additionally, if coaches wish to build trust, they should be polite and respectful and treat their student-athletes with dignity. Finally, upon the determination of a student-athletes' role on the team, coaches should seek to explain how and why the given role was assigned. According to the findings in the current study, if such suggestions are followed coaches should be able to increase the amount of trust their student-athletes have in them.

The finding of positive relationships between trust and the quality of the exchange relationship also offers insight to practitioners. The idea that a coach's relationship with their student-athletes is affected by the trust the student-athlete has in them suggests coaches should work hard to build trust. If coaches fail to build a degree of trust with their student-athletes, they risk having the student-athlete perceive their relationship as poor. This perception may in turn cause student-athletes to feel less emotionally attached to the coach and less obligated to reciprocate any exchanges (Blau, 1964). Furthermore, poor exchange relationships, as Blau (1964) and Homans (1961) discussed, will likely cause the dyad to come to an end. Within the context of intercollegiate athletics, the ending of a coach student-athlete dyad may be seen in student-athletes quitting the sport, transferring to a new team, or seeking to have the coach removed from their position.

However, it is important to understand the present structure of college sport might make such relationship formation difficult. First and foremost, coaches at large, Division I FBS universities are often evaluated on the number of victories and championships they obtain and not their relationships with athletes. As a result, they often face pressure to win above all else. Such structure may very well influence coaches' action and cause athletes to feel alienated thus decreasing their overall perceptions of justice, trust and LMX. Additionally, coaches might not always strive to employ a democratic style and afford players a voice in the process (i.e., grant them procedural justice). For example, certain instances and occurrences might call for a more autocratic leadership approach or social support. As such the present results should serve as only an introduction into the topic of organization justice, trust, and LMX in intercollegiate coach student-athlete relationships and future researchers should seek to examine these issues more in-depth to offer further insights.

Contrary to the consequences that may result from a failure to build trust, the present results establish coaches who are able to establish high degrees of trust amongst their student-athletes will build strong exchange relationships. As suggested by exchange ideology, these student-athletes will in turn feel more emotionally attached to their coach and feel a greater level of obligation to reciprocate the awards they received (Blau, 1964). Within the organizational literature, feelings of attachment and obligation have been shown to lead to high levels of individual performance (Cropanzano & Mitchell, 2005), organizational citizenship behavior (Wayne, Shore, Bommer, & Tetrick, 1997), and organizational performance (Lawler, 2001). Sport scholarship findings echo those of organizational literature, as attachment and obligation have been established to increase performance (Case, 1998; Czekanski & Turner, 2014; Nikbin et al., 2014; Zang & Chelladurai, 2013), decrease intentions to leave (Barnhill et al., 2013), and increase job satisfaction (Raedeke, Warren, & Granzyk, 2002). Though these outcomes again fall outside the scope of the current study, it may be hypothesized that through acting justly coaches can build trust and establish quality exchange relationships, which in turn may increase the production of both their student-athletes and teams, causing them to win more competitions and have decreased intentions to leave the team. Accordingly, future scholarship should look to

further explore the outcomes associated with high level exchange relationships to see if such propositions hold.

## Limitations and Future Studies

While the current study does well extend the story of organizational justice through the SET and address the gaps in sport management literature, the study and results are limited in multiple ways. First, it must be noted the population from which the analysis was drawn consisted of only student-athletes from a single, large Midwestern university. Accordingly, the current study lacks external validity and the results can only be applied to the studied university's student-athlete population. Future work should apply the same theoretical constructs to other universities to add further credence to the results found here.

Secondly, the number of respondents ( $n = 149$ ) must be addressed. Though the number falls within the minimum sample size of 100 to 150 subjects suggested by Ding, Velicer, and Harlow (1995) for SEM, other scholars (e.g., Fritz & MacKinnon, 2010), have suggested far greater sample sizes are needed. However, as Barrett (2007) noted, for SEM where the population being drawn from is limited (i.e., in the hundreds or low thousands) a sample size of less than 200 can be acceptable. Bentler and Chou's (1987) work took a slightly different perspective than Barrett's and suggested researchers should have five subjects or more per item when performing mediated analysis. As the population drawn from for the current study was approximately one thousand and a ratio of 6.2 responses per item was gained, the current study does fall in compliance with much of the literature.

However, as the sample size in the present study does not satisfy all scholars' recommendations, future studies using SEM should garner a larger sample (i.e., a sample of greater than 200) in hopes of obtaining a more responses and increasing the overall strength of the model's fit indices. Such larger response totals may be had through widening the scope of the study to include multiple universities or through improving data collection techniques.

Finally, the current findings are limited due to the relatively high variance found between trust and LMX. This suggests the items used were possibly measuring the same construct despite the fact items within the instrument were found to not cross load. Blau (1964) noted the constructs of trust and exchange are highly related, as by definition a quality exchange relationship is established through building of trust with the exchange partner. Bauer and Green (1996) furthered this by stating quality LMX has been found to be result of successfully building trust. More specifically they stated, "a key aspect of LMX development must be factors that would theoretically be linked to trust building ..." (p. 1539). Finally, Gestner and Day's (1997) meta-analysis found LMX is multidimensional construct that includes trust. Taking these studies and Blau's depiction of exchange into account may explain why trust was found to load so highly on LMX. However, the high variance could also have been brought about due to poor measurements. Future scholars should thus explore the measurement models for both trust and LMX to better understand the current study's finding and to determine more precisely its cause(s).

## References

- Adams, J. S. (1963). Toward an understanding of inequity. *Journal of Abnormal and Social Psychology*, 67, 422 – 436.
- Adams, J. S. (1965). Inequity in social exchange. In Berkowitz, L. (Ed.). *Advances in experimental social psychology*, Vol. 2 (pp. 267 – 299). New York: Academic Press.
- Barnhill, C. R., Czekanski, W. A., & Turner, B. A. (2013). Psychological contracts and student-athlete retention. *The Journal for the Study of Sports and Athletes in Education*. 7(1), 20 – 40.
- Barrett, P. (2007). Structural equation modeling: Adjudging model fit. *Personality and Individual Differences*, 42, 815 – 824.
- Bauer, T. N., & Green, S. G. (1996). Development of leader-member exchange: A longitudinal test. *The Academy of Management Journal*, 39(6), 1538 – 1567.
- Bentler, P. M., & Chou, C. (1987). Practical issues in structural equation modeling. *Sociological Methods and Research*, 16, 78-117.
- Bies, R., & Moag, J. (1986). Interactional justice: Communication criteria on fairness. In Lewicki, R., Sheppard, B.m & Bazerman, M. (Eds.), *Research on negotiations in Organizations*, Vol. 1 (pp. 43 – 55). Greenwich, CT: JAI Press.
- Bies, R., & Shapiro, D. L. (1987). Interactional fairness judgments: The influence of causal accounts. *Social Justice Research*, 1, 199 – 218.
- Bies R., & Shapiro, D. L., (1988). Voice and justification: Their influence on procedural fairness judgments. *Academy of Management Journal*, 31, 676 – 685.
- Blau, P. M. (1964). *Exchange & power is social life*. New York: Wiley.
- Case, R. (1998). Leader member exchange theory and sport: Possible applications. *Journal of Sport Behavior*, 21(4), 387 – 395.
- Colquitt, J. A. (2001). On the dimensionality of organizational justice: A construct validation of a measure. *Journal of Applied Psychology*, 86, 386 – 400.
- Colquitt, J. A., Conlon, D. E., Wesson, M. J., Porter, C. O. L. H., & Ng, K. Y. (2001). Justice at the millennium: a meta-analytic review of 25 years of organizational justice review. *Journal of Applied Psychology*, 86, 425-445.
- Colquitt, J. A., & Shaw, J. C. (2003). How should organizational justice be measured? In J. Greenberg & J. A. Colquitt (Eds) *Handbook of organizational justice*. Mahwah, NJ, Lawrence Erlbaum Associates.
- Cook, K. S., & Rice, E. (Ed.). (2003). *Handbook of social psychology*. New York: Kluwer Academic/Plenum Publishers.
- Cropanzano, R., & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. *Journal of Management*. 31(6), 8740 – 900.
- Czekanski, W. A., & Turner, B. A. (2014). Social exchange and performance in intercollegiate athletics. *Journal of Issues in Intercollegiate Athletics*, 7, 367 – 389.
- Daly, J. P., Williams, D. R., O’Conner, S. J., & Pouder, R. W. (2009). Interpersonal aspects of justice in relationships between consumers and service providers: A confirmatory factor analysis. *Social Justice Research*, 22, 335 – 350.
- Ding, L., Velicer, W. F., & Harlow, L. L. (1995). Effects of estimation methods, number of indicators per factor, and improper solutions on structural equation modeling fit indices. *Structural Equation Modeling: A Multidisciplinary Journal*, 2, 119-143.

- Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology, 71*, 500 – 507.
- Fritz, M. S., & MacKinnon, D. P. (2007). Required sample size to detect the mediated effect. *Psychological Science, 18*, 233 – 239.
- Gerstner, C. R., & Day, D. V. (1997). Meta-analytic review of leader-member exchange theory: Correlates and construct issues. *Journal of Applied Psychology, 82*, 827 – 844.
- Greenberg, J. (1990). Organizational justice: yesterday, today, and tomorrow. *Journal of Management, 16*(2), 399 – 432.
- Greenberg, J. (1993). Stealing in the name of justice: Informational and interpersonal moderators of theft reactions to underpayment inequity. *Organizational Behavior and Human Decision Processes, 54*, 81 – 103.
- Greenberg, J., Mark, M., & Lehman, D. R. (1985). Justice in sport and games. *Journal of Sport Behavior, 8*, 18 – 33.
- Hair, Jr., J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (1998). *Multivariate data analysis (5th ed.)*. Upper Saddle River, NJ: Prentice Hall.
- Hersen, M. (2004). *Comprehensive handbook of psychological assessment*. New York: John Wiley and Sons.
- Homans, G. C. (1961). *Social behavior: Its elementary forms*. New York: Harcourt, Brace, & World.
- Hums, M. A., & Chelladurai, P. (1994a). Distributive justice in intercollegiate athletics: Development of an instrument. *Journal of Sport Management, 8*, 190 – 199.
- Hums, M. A., & Chelladurai, P. (1994b). Distributive justice in intercollegiate athletics: The views of NCAA coaches and administrators. *Journal of Sport Management, 8*, 200 – 217.
- Iacobucci, D. (2010). Structural equation modeling: Fit indices, sample size, and advanced topics. *Journal of Consumer Psychology, 20*, 90 – 98.
- Jordan, J. S., Gillentine, J. A., & Hunt, B. P. (2004). The influence of fairness: The application of organizational justice in a team sport setting. *International Sports Journal, 8*, 139 – 149.
- Jordan, J. S., Turner, B. A., & DuBord, R. A. (2007). Organization justice as a predictor of job satisfaction: An examination of university recreation department student employees. *International Journal of Sport Management, 8*, 32 – 54.
- Jordan, J. S., Turner, B. A., Fink, J. S., & Pastore, D. L. (2007). Organizational justice as a predictor of job satisfaction: An examination of head basketball coaches. *Journal of the Study of Sports and Athletes in Education, 1*(3), 321 – 344.
- Jordan, J.S., Turner, B. A., & Pack, S. M. (2009). The influence of organizational justice on perceived organizational support in a university recreational sports setting. *International Journal of Sport Management and Marketing, 6*(1), 106 – 123.
- Jowett, S. (2003). When the honeymoon is over: A case study of a coach-athlete dyad in crisis. *The Sport Psychologist, 17*, 444 – 460.
- Judge, T.A., & Colquitt, J. A. (2004). Organizational justice and stress: The mediating role of work-family conflict. *Journal of Applied Psychology, 89*(3), 395 – 404.
- Kent, A., & Chelladurai, P. (2001). Perceived transformational leadership, organizational commitment, and citizenship behavior: A case study of intercollegiate athletics. *Journal of Sport Management, 15*, 135 – 159.
- Kernan, M. C., & Hanges, P. J. (2002). Survivor reaction to reorganization: Antecedents and consequences of procedural, interpersonal, and informational justice. *Journal of Applied Psychology, 87*(5), 916 – 928.

- Kim, S., Andrew, D. P. S., Mahony, D., & Hums, M. A. (2008). Distributive justice in intercollegiate athletics: Perceptions of student athletes. *International Journal of Sport Management, 9*, 379 – 393.
- Kollock, P. (1994). The Emergence of exchange structures: an experimental study of uncertainty, commitment, and trust. *The American Journal of Sociology, 100*(2), 313-345.
- Lawler, E. J. (2001). An affect theory of social exchange. *American Journal of Sociology, 107*(2), 321-352.
- Leventhal, G. S. (1976). Fairness in social relationships. In J.W. Thibaut, J.T. Spence, & R.C. Carson (Eds.), *Contemporary topics in social psychology* (pp. 211 – 239). Morristown, NJ: General Learning Press.
- Leventhal, G. S. (1980). What should be done with equity theory? New approaches to the study of fairness in social relationship. In K.S. Gergen, M.S. Greenberg, & R.H. Willis (Eds.), *Social exchange: Advances in theory and research* (pp. 27 – 55). New York: Plenum Press.
- Mahony, D. F., & Pastore, D. M. (1998). An examination of participation opportunities, revenues, and expenses at NCAA institutions – 1973 – 1993. *Journal of Sport and Social Issues, 22*, 127 – 152.
- Mahony, D. F., Hums, M. A., Andrew, D. P. S., & Dittmore, S. W. (2010). Organizational justice in sport. *Sport Management Review, 13*, 91 – 105.
- Mahony, D. F., Riemer, H. A., Breeding, J. L., & Hums, M. A. (2006). Organizational justice in sport organizations: Perceptions of student-athletes and other college students. *Journal of Sport Management, 20*, 159 – 188.
- Molm, L. D., Takahashi, N., & Peterson, G. (2000). Risk and trust in social exchange: An experimental test of a classical proposition. *The American Journal of Sociology, 105*(5), 1396 – 1427.
- Nikbin, D., Hyun, S. S., Iranmanesh, M., & Foroughi, B. (2014). Effects of perceived justice for coaches on athletes' trust, commitment, and perceived performance: A study of futsal and volleyball players. *International Journal of Sports Science & Coaching, 9*(4), 561 – 578.
- Raedeke, T. D., Warren, A. N., & Granzky, T. L. (2002). Coaching commitment and turnover: A comparison of current and former coaches. *Research Quarterly for Exercise and Sport, 73*(1), 73 – 86.
- Roch, S. G., & Shanock, L. R. (2006). Organizational justice in an exchange framework: Clarifying organizational justice distinctions. *Journal of Management, 32*, 299-322.
- Sage, G. H. (1973). The coach as management: organizational leadership in American sport. *Quest, 19*, 35-40.
- Scandura, T.A., & Graen, G.B. (1984). Moderating effects of initial leader-member exchange status on the effects of a leadership intervention. *Journal of Applied Psychology, 69*, 428-436.
- Shapiro, D. L., Buttner, E. H., & Barry, B. (1994). Explanations: What factors enhance their perceived adequacy? *Organizational Behavior and Human Decision Processes, 58*, 346 – 368.
- Schumacker, R. E., & Lomax, R. G. (1996). *A Beginner's guide to structural equation modeling*. Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Schumacker, R. E., & Lomax, R. G. (2004). *A Beginner's guide to structural equation modeling, second edition*. New York: Psychology Press.
- Summers, G. F. (1970). *Attitude measurement*. Chicago: Rand McNally.

- Thibaut, J., & Walker, L. (1978). A theory of procedure. *California Law Review*, 66(3), 541-566.
- Wayne, S., Shore, L., Bommer, W., & Tetrick, L. (2002). The role of fair treatment and rewards in perceptions of organizational support and leader-member exchange. *Journal of Applied Psychology*, 87, 590-598.
- Whisenant, W. (2005). Organizational justice and commitment in interscholastic sports. *Sport, Education, and Society*, 10, 343 – 357.
- Whisenant, W. & Jordan, J. S. (2006). Organizational justice and team performance in interscholastic athletics. *Applied Research in Coaching and Athletics Annual*, 21, 55 – 82.
- Whisenant, W. & Jordan, J. S. (2008). Fairness and enjoyment in school sponsored youth sports. *International Review for the Sociology of Sport*, 43(1), 91 – 100.
- Whisenant, W., & Smucker, M. (2006). Perceptions of organizational justice among high school coaches of girls' teams. *International Journal of Sport Management*, 7, 206 – 216.
- Zang, Z. & Chelladurai, P. (2013). Antecedents and consequences of athlete's trust in the coach. *Journal of Sport and Health Science*, 2(2), 115 – 121.