January 2018

Play Like You Mean It: Motivational Predictors of Female Student Athletes' Practice and Game Performance

Zipporah Rebekah Foster
Eastern Kentucky University

PLAY LIKE YOU MEAN IT:

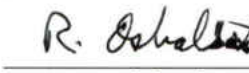
MOTIVATIONAL PREDICTORS OF FEMALE STUDENT-ATHLETES' PRACTICE AND GAME PERFORMANCE

BY

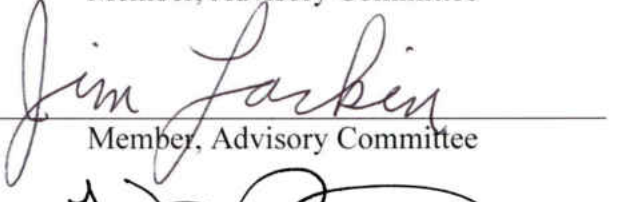
ZIPPORAH FOSTER

THESIS APPROVED:

Chair, Advisory Committee



Member, Advisory Committee



Member, Advisory Committee

Dean, Graduate School

STATEMENT OF PERMISSION TO USE

In presenting this thesis in partial fulfillment of the requirements for a Masters of Science degree at Eastern Kentucky University, I agree that the Library shall make it available to borrowers under rules of the Library. Brief quotations from this thesis are allowable without special permission, provided that accurate acknowledgment of the source is made. Permission for extensive quotation from or reproduction of this thesis may be granted by my major professor, or in his absence, by the Head of Interlibrary Services when, in the opinion of either, the proposed use of the material is for scholarly purposes. Any copying or use of the material in this thesis for financial gain shall not be allowed without my written permission.

Signature Zipporah Foster

Date 11/8/2018

PLAY LIKE YOU MEAN IT:

MOTIVATIONAL PREDICTORS OF FEMALE STUDENT-ATHLETES' PRACTICE AND GAME PERFORMANCE

BY

ZIPPORAH FOSTER

Bachelor of Arts

Winston-Salem State University

Winston-Salem, North Carolina

2017

Submitted to the Faculty of the Graduate School of

Eastern Kentucky University

in partial fulfillment of the requirements

for the degree of

MASTER OF SCIENCE

2018

DEDICATION

This thesis is dedicated to my parents

Willis and LaTonya Foster.

ACKNOWLEDGMENTS

First, I would like to thank my advisor, Dr. Jonathan Gore, who saw my interest and believed in my potential. Without his continued encouragement, guidance, and support, I would not be as confident as I am in my knowledge and my work. I would also like to thank the members of my committee, Dr. Richard Osbaldiston and Dr. Jim Larkin, for their advice, comments, and assistance in this project. I should also thank the Department of Psychology, MARC U*STAR & NIGMS-RISE Program, and NC-MSEN Program at Winston-Salem State University for their encouragement to pursue a degree outside of North Carolina and continued support throughout this journey. I would like to thank the Stevenson Small Group for treating me as family here in Kentucky. Finally, I am thanking my parents, Willis and LaTonya Foster, siblings, Micah and Justin Foster, grandparents, and close friends, Johnathan Brown and Remi Olagoke. Thank you for your unconditional love, patience, and support in the pursuit of my dreams!

ABSTRACT

The current study explores how motivational reasons for goals influence athletic performance on a women's basketball team. The purpose of the current study was to expand on past research associated with fluctuation of motivation in practice and game performance throughout a season. Participants (n = 15) in the current study were female student-athletes, who completed a motivational survey that measured Relationally-Autonomous Reasons (RARs), Personally-Autonomous Reasons (PARs), and Controlled Reasons (CRs). Athletic performance was measured by examining daily practice performance and game statistics for each athlete. The results of the current study showed that RARs were associated with game performance ($p < .05$), however PARs and CRs were not. RARs were positively associated with game performance whereas PARs were not. The association for RARs and game performance was stronger than RARs and practice performance. Overall, the findings confirm that RARs are associated with game performance in women's sports.

TABLE OF CONTENTS

LIST OF ABBREVIATIONS

Controlled Reasons ……..CRs

Personally-Autonomous Reasons …….…….PARs

Relationally-Autonomous Reasons ……...…RARs

Self-Concordance Model ……...SCM

Self-Determination Theory …….SDT

CHAPTER I

INTRODUCTION

Motivation is the driving force for people's thoughts, motives, and desires. For athletes, these desires are constantly affected by their social environment. Social environments are filled with daily interactions and experiences that alter ambitions, goals, and dreams, causing shifts in motivation and performance. Motivation is influenced in large part by the reason for a goal or objective. In sports, motivation is the driving force behind an athlete's success or accomplishments, but it is still unclear how much of their motivation is internal, forced, or socially driven. Most investigations of motivation are intrapersonal (i.e. internal drive and grit) but rarely consider the interpersonal factors that drive athletes, especially for those who play on a team. Therefore, the purpose of this investigation was to understand the motivational reasons for female athletes and how relational factors in team settings impact performance.

CHAPTER II

LITERATURE REVIEW

Theories of Motivation

Motivation is the driving force or reasons behind one's actions. Researchers have developed several theories that are linked to motivation. One of these theories is Deci and Ryan's (2000) Self-Determination Theory (*SDT*). SDT is a meta-theory that explains intrinsic and extrinsic motivation based on individual differences and behavior (Ryan & Deci, 2000). This theory encompasses a framework of various types of motivation. Specifically, the theory describes two perspectives: actions centered on intrinsic motivation and actions centered on external sources of motivation. Self-determination theory is based on basic needs satisfaction, which includes three aspects that are associated with one's overall needs: (1) relatedness, (2) autonomy, and (3) competence. Relatedness is defined as "the desire to feel connected to others" (Deci & Ryan, 2000, p. 231). Autonomy is defined as "the organismic desire to self-organize experience and behavior and to have activity be concordant with one's integrated sense of self" (Deci & Ryan, 2000, p. 231). Competence is defined as "a propensity to have an effect on the environment as well as to attain valued outcomes within it" (Deci & Ryan, 2000, p. 231). All three needs independently make certain experiences feel rewarding, but the combination from these motives are even more rewarding. These concepts are important because they provide a basis or understanding of how motivation is developed within the self or interpersonal experiences.

Individuals tend to seek outcomes or relationships that sustain their need satisfaction (Deci & Ryan, 2000). Therefore, it is important to consider different types of motivation when establishing relationships and goals with other individuals. Two facets of motivation that are widely discussed are intrinsic and extrinsic motivation. Intrinsic motivation is an internal desire or motive that is driven by one's personal interests. Additionally, needs satisfaction is associated with intrinsic motivation. Specifically, Ryan and Deci (2000) stated that intrinsic motivation is not defined by competence and autonomy alone, yet they are essential qualities.

A similar concept that relates to SDT and needs satisfaction is extrinsic motivation. Extrinsic motivation is a notion of an individual being driven by outside desires (Ryan & Deci, 2000). A third concept, amotivation, is the individual's loss of desire to perform, resulting in cognitive-motivational tradition (or an inadequacy of motivation). These three types of motivation (intrinsic, extrinsic, and amotivation) provide individuals with the opportunity to further understand how motivation varies based on interest and desires. SDT therefore provides researchers with a framework that explains motivation concepts associated with needs satisfaction.

Similar to SDT, various studies have also been conducted to understand how basic needs affect social environments. Greguras and Diefendorff (2009) hypothesized that basic psychological needs of competence, autonomy, and relatedness all share a relationship between various types of person-environment fit and one's commitment and performance in a job setting. Specifically, when employees' specific psychological needs are satisfied, the employees are more likely to have positive outcomes. Additionally, their findings showed that job performance and commitment improved when an employee's

psychological needs were satisfied and agreed with the employee's personal behaviors and attitudes towards the job. This research is important because it demonstrates how SDT and needs satisfaction are both measured in the workplace. It also supports an approach that recognizes how commitment and psychological needs are linked to positive outcomes, which is crucial in the association of athletes and motivation.

Self-Determination Theory and Sports

There are several studies that have been conducted on SDT and sports motivation. The connection between SDT and sports is a perspective that an athlete's sports environment continuously affects their happiness, health, and success. However, one should be aware of the impact associated with their environment that leads to positive or negative outcomes. For example, athletes who struggle with balancing or multi-tasking can be successful in their sport, but struggle academically or socially.

Several studies have been conducted to examine how performance, socialization, and relationships are all impacted by motivation and self-determination. Kipp and Amorose (2008) evaluated self-determined motivation in high school female athletes. Using a combination of SDT (Deci & Ryan, 1985) and the hierarchical model of motivation (Vallerand, 1997), they developed a series of relationships that impact athletes' basic needs in a social atmosphere. The aim of their study was to determine if basic satisfaction needs were positively correlated with self-determination based motivation. From these studies, it is clear that one's needs influences not only motivational level, but their social environment as well.

One's motivation also influences their perception of social orientations recognized in their environment. Specifically, several studies have acknowledged the impact of task and ego orientation on needs satisfaction. Deci and Ryan (2000) present two concepts associated with motivation: ego involvement and task involvement. Ego involvement is the desire for external focus and ability, while task involvement occurs when an individual is less worried about external desires and self-evaluation. Task-involving climate ranges are positively correlated to the needs of an athlete while ego-involving ranges are negatively correlated. As defined by Deci and Ryan (2000), ego involvement is the desire for external focus and ability, whereas task involvement occurs when an individual is less worried about external desires and self-evaluation. Third, task-involving climates (i.e. cooperative learning, effort and improvement, and important roles) are positively correlated to the psychological needs of an athlete while ego-involving ranges are negatively correlated.

Additionally, Sari (2015) showed that task orientation is associated with needs satisfaction. . Furthermore, Kipp and Amorose (2008) explored the impact that need satisfaction, self-determined motivation, and perceived motivational climate had on female athletes. Their findings suggested a positive association between needs satisfaction and self-determined motivation. However, autonomy was negatively related to punishment. These findings show how positive and negative perceptions of one's environment can influence one's needs satisfaction.

Typically, task-involving climates in sports are controlled by a coach or an authoritative figure. Recent research has been conducted to investigate how task-involving coaching impacts athletic motivation. Reinboth and Duda (2006) examined

how psychological needs in athletes change over a sport season. They measured perceptions based on the motivational climate in sports, ill and well-being, and basic needs. Their results indicated an increase of basic psychological needs is positively associated with perceptions of task-involving coaching over a season. More precisely, the three needs defined the relationship between an athlete's overall well-being and the coach's motivational climate within a season. From these studies, we can assume perceptions can influence the athlete's reasoning for goal pursuit. In turn, the relationship that is developed between a coach and an athlete can affect an athlete's performance.

Other aspects that should be considered when examining self-determination and motivation are performance, achievement, and perceptions of athletes. Gillet, Berjot, and Gobance (2009) found that individual's viewpoints of autonomy, competence, and relatedness (basic needs) lead to performing well. In other words, athletes who experience self-determined motivation would also bring about positive performance within their sport. These basic needs concepts, as a result, influence future sports performance regarding self-determined motivation. Additionally, research has been conducted looking at how psychological needs influence intrinsic motivation in athletes.

Along with the findings from Gillet et. al. (2009), research has investigated how an athlete's atmosphere and self-determination are correlated. Schuler and Brandstatter (2013) proposed that an athlete's environment can positively impact her motive and needs. Athletes who show a high motive for achievement experience positive needs for relatedness and competence; helping to improve one's intrinsic motivation. The findings from both Gillet et. al. (2009) and Schuler and Brandstatter's (2013) suggest that for athletes to experience positive achievement and performance, all three needs must be

present with intrinsic motivation. In other words, all three needs must be satisfied instead of just one of them. Their research proposes there must be a strong relationship between basic needs and intrinsic motivation. These two studies propose the athlete's daily interactions with close others (i.e. teammates) can influence their environment resulting in positive performance levels.

Self-determination in sports can be explored when looking at an athlete's change in environment, athletic burnout, and socialization. Schuler, Wegner, and Knechle (2014) found the best way to positively impact athletes is not only by creating a positive environment and providing feedback related to their performance, but to affect their intrinsic motivation and environment. In other words, feedback and different viewpoints are needed to impact an athlete's attitude. Their research also supports a concept that women's achievement motive is higher than men. Therefore, these results explain why only female athletes were chosen for the current study. Additionally, it proposes positive performance is not only driven by personal reasons, but it can also be influenced by the relationships that are developed and supported within their environment.

Fear of failure and athletic burnout are two additional aspects athletes may endure. For example, motivational and personal paths impact fear of failure in young athletes during a season, especially when athletes view coaches as a vital influence on their path (Conroy & Coatsworth, 2007). Specifically, relationships between athletes and coaches, peers, or family members can all equally impact an athlete's motivation. Regarding athletic burnout, Lonsdale, Hodge, and Rose (2009) found a positive correlation between amotivation and other aspects of motivation while focusing on all forms of burnout, whereas a negative relationship related to burnout scores and

autonomous aspects of motivation. Their findings also imply that one's motivation is mediated though signs of burnout (through exhaustion) and the basic needs (autonomy, competence, and relatedness). These studies have shown fear of failure and athletic burnout do impact an athlete's motivation.

Overall, Self-Determination Theory connects motivation to sports and influences the athlete's daily levels of performance and their environment. SDT acknowledges differences in types of goals and reasons why goals are achieved. Additionally, recognizing how an athlete's basic needs impact success, social climate, and team performance may modify how coaches view the importance of goal pursuit in sports. The findings from these studies should be considered when exploring the influence that motivation has on one's environment, achievement, and overall performance.

Different Types of Reasons for Goals and Achievement Outcomes

When considering motivational differences, one's reasons or desires for goal pursuit are key determinants of performance outcomes. Gore and Cross (2006) proposed three types of reasons people use in their goal pursuit: *personally-autonomous reasons* (*PARs*), *controlled reasons* (*CRs*), and *relationally-autonomous reasons* (*RARs*). These three reasons for goals would be referenced as such in the current study. This section will define what they are and how they differ from one another.

Personally-Autonomous Reasons (PARs) are defined as reasons for goal pursuit that derive, "from a person's individual or personal endorsement" (Gore et. al., 2018). PARs use an "I" perspective when developing a drive or enjoyment for that task. Gore and Cross (2006) related Sheldon and Elliot's (1999) self-concordance theory to

personally-autonomous reasons for goals by stating “reasons that reflect one’s primary interests and the fun or enjoyment that comes from pursuing the goal (termed intrinsic reasons) and reasons that reflect the person’s belief that the goal is important and derives from one’s personal convictions (termed identified reasons)” (p. 859).

Controlled reasons (CRs) are defined as, “any motive that incorporates the demand of one’s situation or social environment, including the demands with close relationships” (Gore et. al., 2018, p. 5). Goals driven by CRs may be adopted to avoid, “feeling ashamed, anxious, or guilty” or demanded “by another person or the situation” (Gore & Cross, 2006, p. 849).

Gore and Cross (2006) defined relationally-autonomous reasons (RARs) as “the relative autonomy of relational reasons for goal pursuit (p.850).” RARs incorporate desires and needs from close relationships during the pursuit of one’s goals. RARs use a “we” perspective cultivating a “sense that important relationships prove an additional degree of commitment and investment in a goal” (Gore et. al., 2018, p. 6).

Personally-autonomous reasons (PARs) are different from relationally-autonomous reasons (RARs) because the motive behind the goal is its importance to “me,” whereas the motive behind the goal for RARs is its importance to “us.” Controlled reasons are different from PARs and RARs because these reasons are typically less enjoyable: The individual is motivated to complete the goal to avoid conflict. RARs are conjoint, in that both members of the relationship have internalized the importance of the goal. CRs which involve other people are disjoint, in that only one member of the relationship considers the goal important and is forcing that goal onto the other. Thus, the involvement of another person can be relationally-autonomous or controlling depending

on the degree to which the motive is shared. Both PARs and RARs incorporate a sense of enjoyment when pursuing a given goal; however, RAR rewards are more distinctive. Specifically, PARs are linked to feelings of purpose more than RARs, but RARs are associated with higher levels of effort than PARs (Gore & Cross, 2006). The main difference between RARs and PARs is that PARs are reasons that are important to the individual whereas RARs are reasons that matter both to the individual and to close others. Overall, PARs, RARs, and CRs all differ as to why people pursue their goals. The next section will discuss the outcomes of pursuing goals for these reasons.

Outcomes of Personally-Autonomous and Controlled Reasons

Motivational goals differ based on each individual. For example, someone can have a personal reason to exercise (i.e. I think it is important for me to be healthy). Gore and Cross (2006) affirmed PARs focus more on personal profit or gain than mutual benefit with others. The PARs concept helps identify the individual purpose or reason behind the individual goal pursuit and the drive, rather than just goal type or need satisfaction.

Sheldon and Elliot (1999) first introduced the relative influence of PARs and CRs through the Self-Concordance Model, or SCM. Self-concordance is the degree to which the goal is personally autonomous versus controlled. Goals that are high in PARS and low in CRs are pursued with more effort, more likely to be achieved, and more satisfying when they are achieved (Sheldon & Elliot, 1998, 1999). The model also elaborates on how goals progress from choosing a goal to the execution of that goal. In short, PARs tend to lead to positive goal outcomes whereas CRs tend to lead to short term and negative outcomes.

Both PARs and CRs differ based on environmental factors and needs satisfaction. Sheldon and Elliot (1999) suggested social goals are based on needs that are influenced by societal factors regarding one's relationships. Specifically, it is harder to disengage from PARs than CRs. For example, an individual may struggle to complete an assignment that has been assigned to them rather than completing a task that is personal. Therefore, when reasons for goals do not relate to personal beliefs or values, the reason is no longer personal. Additionally, goals that are controlled may only connect with one personal belief rather than all their beliefs and values. Therefore, goals that are not personal may still be achieved because of controlled reasons, but the process may take longer and the achieved goal may feel less satisfying.

Overall, Sheldon and Elliot (1999) discovered several things in their research. First, "not all personal goals are personal" (Sheldon & Elliot, 1998, p. 555). This statement suggests if an individual is not driven and truly interested in the goals they have set for themselves, there will be a lack of self-motivation in accordance to that specific goal, regardless of their intentions. Additionally, they found "not all progress is beneficial" (Sheldon, Elliot, Kim, & Kasser, 2001; Sheldon & Elliot, 1999, p. 484). This concept suggests individuals may not experience more satisfaction and well-being when achieving a goal but, in fact, progress without it.

Ultimately, the SCM discusses differences in PARs and CRs for goal pursuit. Furthermore, it explains why individuals adopt CRs that are not related to personal values. Their research also indicated Deci and Ryan's (1985) psychological needs concepts are essential to positive life satisfaction. Their evidence showed when individuals create goals based on PARs, basic needs satisfaction would also be fulfilled in

their actions over time. Ultimately, this research emphasizes the importance of PARs as the main component of the SCM model and how it relates to motivation.

Personal or controlled reasons can impact an individual's actions and behaviors. Spray, Wang, Biddle, and Chatzisarantis (2006) found a personally autonomous approach had more of a positive motivational influence because of the effect communication style and positive feedback had on the free-choice behavior and enjoyment. Furthermore, regardless of the participant's goal involvement, individuals in a personally-autonomous condition report increased levels of enjoyment and free choice behavior as compared to individuals in a more controlled condition. Therefore, one can assume personal reasons are more enjoyable than controlled reasons.

Although other people may not be directly involved in goals pursued for PARs, they may encourage the person to pursue the goal using their own violation. Autonomy support is defined as interactions or environments that encourage independent perspectives or self-thought. In other words, these are social environments that nurture the use of PARs. For example, parents who provide their children with the opportunity to think for themselves and develop their own opinions or goals create an autonomy-supportive environment. Halvari, Ulstad, Bgoien, and Skjesol (2009) discovered that motivation pertaining to autonomy and competence moderate indirect connections among performance and autonomy support. However, the results showed not all students find autonomy-supportive environments to be helpful. Therefore, supportive environments are based on the requirements of the goal and the individual's need for support.

Autonomy support impacts motivation according to Hagger et al. (2007) showed autonomy support and intrinsic motivation are correlated. Furthermore, relational support

(i.e. teachers, parents, peers) and motivation are linked to the source of the given goal. Parental and peer support have greater influences as compared to the support teachers give. For example, goals that have been shared relationally are more likely to be achieved. Therefore, individuals who receive autonomy support from close others are more likely to have positive outcomes rather than support that is controlled.

In conclusion, PARs relate to motivational outcomes because they focus on how personal reasons drive goals, whereas CRs can be based on fixed situations or environments that are important to the individual. Both reasons relate because they use either a "mine" or "yours" perspective which differs from a shared goal. In sports, athletes that are driven by high PARs and low CRs will have more positive outcomes than reasons that are only controlled. Ultimately, there has been little research examining the role of RARs or shared reasons in females.

Outcomes of Relationally-Autonomous Reasons

As mentioned earlier, a personal reason for goal pursuit can also be shared with others. For example, teammates who play the same position may work together after practice to improve a certain skill. Since the mutual desire to improve is shared, both teammates will be motivated to work hard in the drill so that the other teammate is not let down. This shared reason creates a source of cohesiveness or a closer bond with each other. Similarly, relational reasons are different in that a sense of "ours" is created (which is different from "mine" or "yours"). This section will expand on RARs and why it is being applied to athletics.

Gore and Cross (2006) proposed people are driven to pursue goals because of reasons: relational gain (I want to work hard so that we can be successful. Fitzsimons and Shah (2008) also suggest people's goals are easily influenced by their intimate social relationships. They found individuals who set goals not only turn to personal motivation but also use their social environment to achieve their interpersonal and personal objectives. This leads to how RARs are highly connected to levels of commitment and our basic needs, creating a sense of well-being. RARs are positively associated with goal pursuit after controlling PARs over time. The findings from this research suggest goals based on both PARs and RARs are effective in goal pursuit.

RARs can also drive peoples' daily goal pursuit. Gore (2014) discovered individuals who have consistent communication with their family and friends on a daily basis while pursuing a goal leads to RARs. Similarly, Gore et. al. (2018) found when goals are pursued, sharing the value of the goal and directly involving the other person are essential parts of reaching the goal. These discoveries are profound in that to date, there is no research which has yet assessed motivation in daily goal pursuit based on close relationships.

Reasons for Goals and Athletic Outcomes

Gaining an understanding of what inspires athletes is imperative for researchers who seek to understand differential outcomes in athletic performance. This may provide coaches, administrators, and even fans with a further understanding of the personal reasons or motives behind goals athletes set for themselves. The connection between PARs and sports can be understood as an athlete's personal motives for their success and achievement, regardless of the demands acknowledged by close relationships (i.e.,

coaches, teammates, and parents). Similar to the research on other goal domains, research has shown an important connection between PARs and sports. In sports, this can be described as an athlete viewing her or his achievements as based on intrinsic motivation rather than extrinsic reasons.

Corresponding with Sheldon and Elliot's (1999) self- concordance model, research done by Smith, Ntoumanis, and Duda (2007) altered the model so it could be utilized in sports research. Modifications were associated with pursuing goals (goal striving) and needs satisfaction. Their findings suggest their adaptation to the SCM model can be used to affectively examine sports. Additionally, they discovered a relationship between effort and specific regulation. In other words, regardless of when athletes find a goal to be unpleasant, the specific goal still aligns with their motives and beliefs. This outlook assures the athlete that even in their discomfort, they still have the advantage of obtaining their primary goal. Therefore, this proposes the idea that athletes may complete a goal because it relates to their PARs, even if the athletes also have highly controlled reasons for playing the sport.

Similarly, Adie, Duda, and Ntoumanis (2008) found a positive relationship between recognition of autonomy support and the satisfaction of the three psychological needs. Their research found the satisfaction of relatedness, autonomy, and competence should cause “liveliness” and “low psychological needs” should result in higher amounts of physical distress and emotional exhaustion. Individuals who reported lower levels of personal autonomy expressed more exhaustion, physically and emotionally, especially as it related to sports. Their findings are valuable because it supports Ryan and Deci's

(2000) basic needs theory and offers an understanding of how needs satisfactions differ based on levels of activity.

Various studies have discovered associations between personal autonomy and sports. For example, Matosic and Cox (2014) found when athletes perceive their coach to be autonomy-supportive and low in controlling behaviors, the athletes have higher levels of need satisfaction and autonomous motivation, and lower levels of amotivation and external regulation. Coaches who demonstrated more controlling behaviors and provided less autonomy support and need satisfaction, had their athletes reporting higher levels of amotivation and external regulation, and lower levels of need satisfaction and autonomous motivation. Lastly, even though controlling coaches create a sense of autonomy support (coaches that allow input from players in practice or drills), it is not enough to offset the controlling behaviors athletes may experience. Their research was able to support the idea there is a relationship between specific coaching behaviors (i.e. excessive personal control, controlling using rewards, etc.) and motivational outcomes. Therefore, reasons shared between a team and their coach can be controlled, relationally-autonomous, and personal-autonomous. Goals that are highly personal and controlled involve more conflict than goals that are highly personal and less controlled. Relationally-autonomous reasons (RARs) shared between coaches and athletes may create a sense of autonomy support, whereas controlled reasons (CRs) negatively affect an athlete's autonomy. Therefore, if researchers are able to understand how athletes perceive coaches, these finding can help explain differences in performance for athletes.

Personally-autonomous reasons (PARs) for goals can also be observed in coaches. Sheldon and Watson (2011) found coaches who are more involved and engaged are more

successful in their attempts to provide a structured environment for their teams. They discovered structure and a coach's autonomy support were positively correlated. Similarly, Conroy and Coatsworth (2007) confirmed psychological needs influence athletes' perceptions of the coach-athlete relationship and autonomy supportive coaching (Felton & Jowett, 2013). Ultimately, collegiate and professional coaches should be aware of the need for personal autonomy support for athletes as compared to being extremely controlling. These studies suggest personal autonomy support and well-being in athletes are linked, which can impact their goal outcomes.

Knowing that coaches impact an athlete's environment, it can be assumed coaches would be more likely to engage in specific reinforcements to encourage positive performance. Coatsworth and Conroy (2009) discovered praising autonomous behavior was more influential than the sincere interest that a coach may show to her or his players. Additionally, both relatedness and competence were predicted by coaching behavior, but personal autonomy was not. Likewise, Van der Pol, Kavussanu, and Kompier (2015) observed autonomy support was reported more by individuals than by athletic teams. Perceived praise was correlated positively with high interest and effort. A positive relationship was also discovered between perceived praise with enjoyment in training only, not in competition. In this way, both studies unite the concept of a coach's behavioral impact on athletic performance and personal autonomy.

In summary, personal autonomy in sports is apparent in several ways: coaching, motives, and need satisfaction. Even on a personal level, a specific amount of support is needed in sport motivation. Support which encourages an athlete in their “own autonomy” establishes a basis of reassurance for an athlete’s self-drive or autonomy.

Relational autonomy is unique and important because this is a framework of motivation that has still not been fully adopted, and only a few studies have applied it to sports. Yet, relational autonomy is a concept highly visible in athletics. Evans, Eys, and Wolf (2013) found that an athlete's group environment is impacted by several aspects including the relationship, efforts, and characteristics of those within the group or team. This implies aspects of a relationship that is established between a team are impacted by personal and relational views. In other words, for commitment and cohesiveness to be established, teammates must be able to relate on both a personal and relational level.

Ultimately, relational autonomy is more visible in sports. Like relational autonomy, RARs focus on relational or shared aims that help to cultivate needs for social support and relational dependency. Since this is a newer concept, more findings linked to RARs are found in sex differences. The next section will discuss how differences in sex impact both motivation and athletics.

Sex Differences in Motivation

Sex differences are studied in various settings from the workplace to leadership. These differences should be considered when looking at motivation as well. Gore et. al. (2018) found women are more likely than men to benefit from goals linked to relationally-autonomous reasons (RARs). Recent research has also explored differences in health outcomes in relation to RARs. For example, women's health status is correlated with relationally-autonomous reasons for health (Gore, Bowman, Grosse, & Justice, 2016). Additionally, healthy eating and exercise are related to RARs and healthy behavior for women. Gore et al.'s (2016) findings are important to note because it implies women are more influenced by RARs in heath related situations. Women who utilize

RARs experience higher levels of motivation based on their goal related health outcomes. Therefore, one may assume in female team sports, RARs are more present in motivational outcomes and performance.

Research has combined RARs and sports by examining the relationships between teammates. Senecal, Loughead, and Bloom (2008) found female athletes do better on teams that support cohesion and set goals for their seasons. Furthermore, when attempting to create a team-based program, cohesion is essential for the program's success. This finding is important to note because for a team to experience success, coaches must encourage cohesion within the team (i.e. team bonding, trust, commitment, etc.). Therefore, team goal setting should be constantly monitored and supported throughout a season. From the previous literature, one can easily identify the connection between RARs and motivation. This same connection can also be observed between motivation and sex.

Males may perceive goal attainment differently than females depending on their motivation. Cetinklap (2012) found male athletes scored higher than females on external regulation. For both males and females, task orientation and sport competence were predicted by intrinsic motivation. Additionally, there was a noticeable relationship between men and women as it relates to task orientation and intrinsic motivation. Overall, results suggest physical self-worth for women is a negative predictor, whereas task orientation for men and women were negative predictors. Therefore, this is relevant because it proposes that gender differences are visible in athletes on personal and external levels.

Recent research has investigated how motivational aspects differ in gender. Cremades, Flournoy, and Gomez (2012) found when looking at Division I athletes in the NCAA, athletes who are on scholarship have higher levels of amotivation than the athletes who are not on scholarship. Intrinsic motivation was also reported to be higher in female athletes and lower in male athletes. This research concluded that athletes who did not have a scholarship had higher levels of intrinsic motivation than male athletes with a scholarship. Overall, Cremades et al.'s (2012) findings are important because it shows gender and scholarship status equally play a role in collegiate athletes' intrinsic and extrinsic motivation.

Furthermore, research has assessed gender differences based on the basic psychological needs in specific sports. For instance, recent research has discovered, when examining basketball players on a scale of personal autonomy, males score higher than females (Coteron et. al., 2013). They also explored flow, which is defined as a state in which athletes are so engaged in reaching their goal they ignore all other concerns. This state is suggested to be highly correlated with successful performance. Their research also revealed relatedness was positively associated with flow in males. Additionally, a correlation was reported linking flow to competence in both males and females. In general, their research provides specific knowledge related to differences found in flow states linked to motivation. Furthermore, sex differences are visible in social competence and needs satisfaction. They found female athletes perceive ability, teamwork, and fitness are essential parts of their motivation.

Szarabajko, Gore, and Katzman (under review) proposed sports type and the five mechanisms (accountability, shared values, closeness, coaching relationship, and support)

predict variance for both athletic achievement and RARs. They found RARs are positively related to sports outcomes, including game performance, for women more so than for men. Lastly, they found the coach relationship is not significantly as important as the relationship formed with teammates. Their research supports that coaches should encourage team cohesion for a program to be more successful. Pope and Gore (2018) extended this research by examining differences in RAR and PAR performance in male athletes. He found controlled reasons (CRs) positively relate to game and practice performance. Additionally, he found personally-autonomous reasons (PARs) and RARs positively correlated with game performance, although RARs were negatively correlated with practice performance. This result is interesting because it gives insight on how RARs affect male athletes pertaining to game and practice performance.

In summary, extensive research has been conducted based on various types of motivational influences in different settings. Additionally, sufficient research has discovered evidence supporting RARs and PARs relational impact on individual goals and motives. Now, researchers can acknowledge distinctions related to motivation based on various theories and concepts. Ultimately, these previous studies and reviews provide the opportunity to investigate new theories and concepts of motivation that continue to evolve.

Hypotheses

The current study addressed the issues in sport research related to motivational outcomes in performance and sports. A majority of sport research referring to sex differences in sports are associated with athletic perceptions. Sport research commonly favors motivational differences in males and females based on coach-athlete

relationships, scholarship status, and types of motivation. However, minimal research has been conducted focusing on a specific sport. There is limited research linking RARs to athletic performance, and even less linking RARs to athletic performance over time.

The purpose of the current study was to expand on past research related to daily performance and motivation. Specifically, the current study will expand on findings of Gore (2014), Szarabajko et al. (under review), and Pope and Gore (2018). These three studies served as the primary foundation for the current study because of the methods used and their aims. For example, Szarabajko et al. (under review) focused on athletes in various sports, whereas Pope and Gore (2018) focused specifically on male collegiate basketball players. For that reason, the aim of the current study was to expand the literature encompassing both RARs and PARs in sports motivation. Secondly, our research targeted female basketball players at the collegiate level (NCAA-D1).

The proposed hypotheses for the current study were: (1) total scores of Relationally-Autonomous Reasons (RARs) and Personally-Autonomous Reasons (PARs) would be positively associated with practice and game performance; (2) total scores of Controlled Reasons (CRS) would be negatively associated with practice and game performance; (3) the positive association between RARs and performance would be stronger than PARs and performance; (4) the association between PARs and practice performance would be stronger than PARs and game performance; (5) the association between RARs and game performance would be stronger than RARs and practice performance. The rationale behind hypotheses 4 and 5 is that games use more of a “we” or relational aspect as opposed to practice, where athletes focus on themselves and their skill advancement.

CHAPTER III

METHOD

Participants

Participants (n = 17) in this study were recruited from the Eastern Kentucky University women's basketball team, but 15 cooperated over the course of the season. This team was the only source of participant recruited for this study therefore, all participants were undergraduate females. Participants were emailed a recruitment statement and all informed consent form was provided to athletes at the beginning of the season after approval was obtained from the coaching staff. The incentive for participation in this study were points awarded toward their Colonel's Challenge Account. Each athlete earned one point for the completion of the survey. The Colonel Challenge is an athletic competition between all sports teams at Eastern Kentucky University, with a goal focused on improving academic and athletic experiences. Points can be earned by improving athletic and academic excellence such as being involved in community service projects, improving personal and career life goals, or winning national championships and conference awards. The top three athletic teams with the most Colonel Challenge Points received $1000 for the team budget as a reward for first place. Second place received $750 for the team budget and third place received $500. For participating in this study, each athlete was offered the opportunity to earn 20 total points, for a possible grand total of 340 points for the team.

It should be noted that unexpected sampling issues did occur. The experimenter for this study was unable to gather consistent data from all members of the team.

Specifically, two members of the team did not complete a daily survey. Furthermore, some participants completed the surveys after they were due. As a result, the diary level data collection for motives were relegated to a single assessment score.

Procedure

After a meeting with the coaching staff, the team was emailed a recruitment statement (see Appendix B) that explains the study and its prior approval by the head coach. The coaching staff was provided with printed copies of the recruitment statement and informed consent form (See Appendix C) for the players. The team was provided with the informed consent statement and more information during a brief, in person meeting after practice.

In the consent form, the athletes were informed how practice and game statistics would be obtained. They were also informed of the rules for the incentive. Each athlete would receive one Colonel Challenge point for each survey. If each individual completes all 16 surveys on time, they would receive four additional Colonel Challenge Points. This provided the team with the opportunity to obtain 340 Colonel Challenge Points total for the team.

The athletes were offered the opportunity to complete the survey either in person (printed) or online (Survey Monkey Link) after every practice that the experimenter was able to attend. However, athletes that did not complete the survey in person were provided with a Survey Monkey link through email (see Appendix D). The athletes were asked to compete the 14-item survey over the season (approximately 8 surveys), within the spring semester. Everyone was assigned a unique identification number that only the

experimenter knew. When completing the survey on Survey Monkey, they were asked to provide the assigned ID number instead of their name.

A reminder was sent out to players via email providing them with their individual assigned ID number along with the Survey Monkey Link. The experimenter used the Player Performance Scale to evaluate the athletes practice performance by watching practice on non-game days (rated using a 5-point scale; 1 = very poorly, 5 = very well). Game performance was evaluated by assessing the five main game statistics (listed under game performance) recorded for each player. Since the team did not place in the tournament, their season ended earlier than expected. The total number of challenge points earned were collected and provided to the Challenge Points Coordinator. Athletes were debriefed after all data were collected for the season. A debriefing form was sent to both athletes and coaches after the study was completed (See Appendix E).

Materials

Data were collected weekly from surveys, observations of team practices, and game statistics from the OVC Website. All items that reflect high scores indicate high levels of the construct.

Motivation. Motivational reasons were measured using a 14-item scale (Gore & Cross, 2006; Gore et al., 2009). Motivational reasons in this scale include relational autonomous reasons (RARs), personal autonomous reasons (PARs), controlled reasons (CRs, and effort) focusing on participation. The last 14 items were measured on a 5-point scale (1= *strongly disagree*, 5 = *strongly agree*). Three sub scores were obtained by taking the average rating across the corresponding items. As stated above, very few

members of the team completed more than one assessment. Therefore, an overall average score across all assessment periods was collected for Total PAR, Total RAR, and Total CR scores.

Relationally-Autonomous Reasons. A total of five items were used to measure relationally-autonomous reasons (RARs). The athletes were instructed to rate the items in terms of goal pursuit considering valued relationships. These items were: "It is important to a close teammate of mine," "The teammates involved make it enjoyable," "It strengthens a relationship with someone on the team," "A teammate I am close to thinks it is enjoyable," and "A teammate I am close to is pursing the same, and we both enjoy it."

Personal Autonomous Reasons. A total of four items were used to measure personal autonomous reasons (PARs). Like RARs, athletes were instructed to rate the items in terms of intrinsic goal pursuit. These items were: "It provides me with fun and enjoyment," "I really believe it is an important thing to do," "It allows me to express my independence and individuality," and "It gives me a sense of control in my life."

Controlled Reasons. A total of four items were used to measure controlled reasons (CRs). The athletes were instructed to rate items in terms of controlled reasons based on motivational value. These items were: "The situation demands it," "I would let a teammate down if I did not," "I would feel left out from the team if I did not," and "I would feel guilty, ashamed, or anxious if I did not."

Effort. One item was used to measure effort. Th athlete was instructed to rate this item based on the amount of effort they believe they gave during practice for that day. The item is, "I worked hard today in practice."

***Athletic Performance*.** Practice and game performance were examined as a measure of athletic performance for this study. Data were collected from both practice and game statistics throughout the season.

Daily Performance. A modified scale was used to measure daily practice performance. The experimenter used one item based on performance level. This item was a rated report of each athlete in terms of perceived performance level. Athletes' names were listed under the item which examined daily practice performance. The experimenter rated daily performance levels for each player using a 5-point scale (1 = *very poorly*, 5 = *very well*).

Game Performance. Game statistics were collected from Eastern Kentucky University's athletic website. Since women's basketball is a team sport, the game statistics that were obtained from the website included: blocks, rebounds, steals, points, and assists. Total game performance was calculated by the obtained number of statistics per minute to analyze performance across team members.

CHAPTER IV

RESULTS

The proposed hypotheses for this study included: (1) total scores of Relationally-Autonomous Reasons (RARs) and Personally-Autonomous Reasons (PARs) would be positively associated with practice and game performance; (2) total scores of Controlled Reasons (CRS) would be negatively associated with practice and game performance; (3) the positive association between RARs and performance would be stronger than PARs and performance; (4) the association between PARs and practice performance would be stronger than PARs and game performance; (5) the association between RARs and game performance would be stronger than RARs and practice performance. The first hypothesis used total motive scores as opposed to daily motive scores due to the lack of daily motive scores collected.

Hierarchical Linear Modeling (HLM) was used to evaluate the proposed hypotheses. Level 1 performance variables were entered separately as dependent variables which included: practice performance, minutes played, rebounds, assists, blocks, steals, points, and total game performance. RARs, PARs, and CRs scores were entered as the Level 2 independent variables. Separate analyses were conducted with the Level 2 predictors entered separately (noted as single predictors in Table 1), then an additional analysis that included all Level 2 predictor variables simultaneously (noted as all variables in Table 1). Due to some evidence of suppression effects in the all predictors analysis, we tested the hypotheses using single predictor correlation results.

Table 1. Motivational Predictors of Practice and Game Performance.

Dependent Variables (DV)	Independent Variables (IV)					
	PARs		CRs		RARs	
	Single Predictor	*All Predictors*	*Single Predictor*	*All Predictors*	*Single Predictor*	*All Predictors*
Practice Effort	-.02	-.03	-.01	.10	-.03	-.08
Minutes	-1.25	-5.44*	5.26**	6.31^{+}	5.20**	3.55^{+}
Rebounds	-.41	-1.20*	$.74^{+}$	1.14^{+}	.83**	$.64^{+}$
Assists	.16	$-.08^{+}$	.42	.74*	.14	-.28*
Blocks	.19**	.14*	.27**	-.12	.28**	.30**
Steals	-.01	-.22*	.22*	.42*	.17*	.01
Points	-1.49	-2.94*	.78	2.21^{+}	1.16*	1.05
Total	-.04	-.11**	.04	.11*	.04**	.03

General notes. Unstandardized omega coefficients. IV's were entered as grand-mean centered.

Significant at $^{**}p < .01$, one-tailed; $^{*}p < .05$, one-tailed; and $^{+}p < .10$, one tailed.

Hypothesis 1

For the first hypothesis, RARs were positively associated with minutes, rebounds, blocks, steals, points, and total game performance. PARs were only positively associated with blocks. Additionally, the results indicated that RARs predicted total game performance whereas PAR only predicted blocks in games. Therefore, the hypothesis that RARs scores and PARs would be positively associated with practice and game performance was partially supported. Overall, the first hypothesis was partially supported.

Hypothesis 2

For the second hypothesis, CRs were positively associated with minutes, rebounds, blocks, and steals. Therefore, the hypothesis that CRs would be negatively associated with practice and game performance was not supported. For practice performance, there were no significant findings. Overall, the second hypothesis 2 was not supported.

Hypothesis 3

For the third hypothesis, RARs were positively associated with total game performance but not with practice performance. PARs were not associated with game or practice performance. These results indicated a significantly positive association between RARs and performance, whereas the association between PARs and performance was not significant. Therefore, the third hypothesis was supported.

Hypothesis 4

For PARs, no findings were significant for total game performance or practice performance. Therefore, the hypothesis that the association between PARs and practice performance would be stronger than PARs and game performance was not supported. The fourth hypothesis was not supported.

Hypothesis 5

RARs positively predicted total game performance but not practice performance. These results suggest that the association between RARs and game performance would be stronger than RARs and practice performance was supported. Therefore, the fifth hypothesis was supported.

Multiple Regression

A second series of analyses was conducted by entering all three motive variables as predictor variables. PARs negatively predicted minutes, rebounds, assists, blocks, steals, points, and total game performance, when entering all three motives simultaneously. CRs positively predicted minutes, rebounds, assists, steals, points, and total game performance when entering the all three motives simultaneously. Additionally, RARs positively predicted minutes, rebounds, and blocks and negatively predicted assists when entering all three motives simultaneously. No significant findings were found for practice performance when all Level 2 predictors were entered simultaneously.

CHAPTER V

DISCUSSION

Overall, the purpose of the current study was to expand on previous literature that explored motivation in sports. The first hypothesis was partially supported, as relationally-autonomous reasons (RARs) were associated with better game performance, but personally-autonomous reasons (PARs) were not associated with practice or game performance. The second hypothesis was not supported, as controlled reasons(CRs) were positively associated with minutes, rebounds, and steals, but no significant findings with practice performance. The third hypothesis was fully supported, as RARs were positively associated with performance whereas PARs were not associated with performance. The fourth hypothesis was not supported, since PARs were unrelated to practice and game performance. Lastly, the fifth hypothesis was fully supported, as the association between RARs and game performance was stronger than the association between RARs and practice performance. Overall, RARs were associated with game performance whereas other motives were not associated with performance as expected.

Specifically, the results indicated that as an athlete's relational motives increase, the more minutes played, the more rebounds earned, the more blocks received, the more steals earned, and the more points earned. Furthermore, as relational motives increase, so did an athlete's overall game performance. As controlled reasons for motives increased, so did minutes played in a game, rebounds earned, blocks earned, and steals earned in a game. Lastly, as personal motives increased, so did blocks earned in games.

Implications

Although results did not examine daily fluctuations, the findings from the current study were an expansion of both Szarabakjo et al. (under review) and Pope and Gore (2018). Specifically, the results reiterated RARs' impact on game performance in women's sports. Relational reasons for goals emphasize the shared perspective of "us" within a group. Szarabajko et al. (under review) indicated that RARs are more strongly associated with sports performance for women than for men. Pope and Gore's (2018) findings indicated that both PARs and RARs were positively associated with game performance for male athletes, whereas RARs were negatively associated with practice performance. First, the findings from the current study replicated both Szarabajko et al. (under review) and Pope and Gore (2018) findings, since RARs were positively associated with game performance. The results inform the theories because it also implied that RARS are associated with sports performance for women for game performance rather than practice performance. RARs were also positively associated with game performance and negatively associated with practice performance. Therefore, the results from the current study correspond with Szarabajko et al. (under review) and Pope and Gore's (2018) findings.

Additionally, Deci and Ryan (2000) used three major factors (relatedness, autonomy, and competence) to define SDT and further understand one's motivation and experiences. Ryan and Deci (2000) stated that environments that are more controlling weaken one's autonomy, which decreases their intrinsic motivation. Previous literature has also applied SDT to sports performance. These SDT studies on athletics suggest that one's basic needs (based on SDT) both impact and ultimately predict performance and

motivation of athletes (Gillet, Berjot & Gobance, 2009; Kipp & Amorose, 2008). The findings from the current study inform SDT studies on athletic performance, because they show that relational motives do impact athletic performance in team sports as opposed to controlled or personal motives. Specifically, integrative motives that combine needs (namely, autonomy and relatedness) seem to be more effective for female athletes. The findings from these studies imply that all three needs are helpful separately. However, the current study identifies relational motives as a single integrated construct that positively relates to performance levels in female athletes.

Although past literature acknowledges the role of autonomy in sports motivation, it does not acknowledge the differences between personal and relational autonomy. Specifically, previous literature defined autonomy based on the personal or self-awareness of oneself as opposed to relational awareness of oneself (Deci & Ryan, 2000). In other words, previous sports studies examined autonomy using personal autonomy rather than relational autonomy. Therefore, the findings from the current study clearly illustrate the importance of acknowledging the difference between these two autonomous motives. The current study's results imply that relational motives are more influential than personal motives for athletic performance for female athletes.

For sex differences in sport motivation, previous literature suggested women benefit more from goals associated with RARs than men (Gore et al., 2018). Additionally, Coteron et al.'s (2013) findings showed males score higher on personal autonomy than females. From these studies, there is a visible difference between motives for males and females in sports participation. The results from the current study inform past literature by reiterating the impact that RARs have on female motives in team sports.

Specifically, it is important for females to establish RARs to maintain positive game performance within a season.

Sex differences were also found in performance outcomes for athletes. Specifically, previous research suggested females were more successful on teams that encourage cohesion and goal setting for the season (Senecal et al., 2008). Their findings illustrated the influence that cohesion has on female performance and how to achieve success for the program. Additionally, Schuler et al.'s (2014) findings implied higher achievement motives for women more so than men. The findings from these studies provide further evidence that team cohesion is particularly important for female athletes. The results from the current study inform these studies by reiterating the impact that differences in sex have on athletic performance. The findings from the current study further suggests female athletes thrive off of higher relational motives as opposed to controlled or personal. Furthermore, social environment and the establishment of cohesion within a team is imperative to the success of a women's program. Therefore, coaches and leaders should consider these differences when working with different sports teams.

Although the results of the current study examine the motives of female student-athletes, the findings could be applied to various settings to improve the relational motives that are shared between different groups. The results indicate relational reasons for motives in females are connected to the increase in their performance. Gore et al. (2016) found women's health is associated with RARs for healthy goals and behavior. Additionally, Gore et al. (2018) found RARs strongly predict career search activity, effort provided toward goals, and amount of self-improvement goals achieved for women than

for men. Ultimately, the influence of RARs on women is clear and should be considered when measuring motivation.

Additionally, the findings indicate a positive association between RARs and game performance, relational motives for goal pursuit should be implemented in women's teams. Coaches for female sports teams should be aware of how relational motives influence team performance over a season. Previous research found three mechanisms (direct involvement, shared values, and accountability) influence RARs (Gore et al., 2018). Therefore, coaches who are interested in improving RARs within a team should implement exercises that enhance the progression of these mechanisms. For example, engaging in accountability activities, maintaining group cohesion, emphasizing a sense of 'us' rather than 'me' in athletes, and developing reasonable sub-goals to achieve within a season are all ways coaches can improve RARs within female sports teams.

Furthermore, coaches that encourage relational motives rather than controlled motives are likely to reach season goals and maintain a successful season. Additionally, coaches should attempt to implement activities that lead to higher levels of relational autonomy within the team. These activities should focus more on how to improve the development of emotional connections between the coach and athletes through "relationship building" exercises (i.e. team dinners/outings) and not just "trust building" exercises (i.e. trust falls). Ultimately, to maintain success within a female sport's team, coaches should not just be "aware" of how relational reasons impact the team but should engage in activities that increase relational motives within the team.

Limitations and Future Directions

There are several limitations that should be discussed. First, data collection for daily motives for practice performance was not consistently collected. Throughout data collection, several issues regarding ID number, survey completion, and consistency occurred. Specifically, several participants reported the same ID number when completing the survey (the data were omitted from the study), two star athletes on the team did not complete surveys during data collection, and not all athletes completed the survey after practice ended.

Moreover, there is the lack of generalizability to other team sports. Although the findings explored women sports, the athletes recruited to be a part of the current study were women's basketball players. Participants from the current study compete in the Ohio Valley Conference. Future researchers should consider differences in motivational reasons for sports participation in other conferences. For example, teams within the Ohio Valley Conference might not have as many personal motives (i.e. competing professionally) as compared to the motivational reasons that may be visible in another Division I conference such as the Atlantic Coast Conference (ACC).

Additionally, it should be noted that unexpected sampling issues did occur. The experimenter for this study was unable to gather consistent data from all members of the team. Specifically, two members of the team did not complete a daily survey. Furthermore, some participants completed the surveys after they were due. As a result, the diary level data collection for motives were relegated to a single assessment score.

To address the limitations above, future researchers should consider a different data collection plan that can first, accurately collect data over a season and secondly recruit participants across all recognized levels of the NCAA. Future researchers should consider players that get injured and are not able to attend practice. To ensure that daily motive levels are assessed accurately, and data collected should be consistent (over a season). Researchers should consider incentives and practice times/days as a way to get team members to willingly participate. Additionally, incentives for participants should be discussed both with athletes and coaches to ensure that the incentives are reasonable rewards for participation in the study. Data collection for daily motives after practice should also be discussed with participants so that the best way to collect data throughout the season is agreed upon. For the current study, data collection in person is ideal for the experimenter, however participants may decide that online email links or text messages would be the best way to complete the study. Lastly, future researchers should develop a plan for implementation if motive surveys cannot be completed over an entire season (i.e. pre-test, post-test data collection method).

Although a lack of consistency in data collection for women's basketball was a limitation for the study, a new study was initiated in August as a follow up for female team sports. Specifically, practice performance and daily motives are being measured consistently twice a week over the volleyball season. Overall, data collection has been successful with this team. Data analysis will be completed after the season is over. The findings from this additional project are expected to be presented in a mini-workshop for the volleyball team.

Conclusion

In sports, it is common for motivational reasons to influence goal pursuit throughout a season. In college, athletes may have various reasons to participate in their given sport. Specifically, if an athlete can recognize motivational reasons for sports participation, it is easier for the athlete to maintain and achieve goals. Additionally, coaches and individuals in leadership roles who interact with teams should consider the various motivational reasons for athletes to participate in a sport. Acknowledging difference in an athlete's motivation on a team is imperative to the development of team cohesion.

In conclusion, if relational reasons for goals are encouraged and pursued within a women's team, game performance increases. In other words, the establishment of team cohesion and shared goals are imperative to the overall success of a female team's performance within a season. The findings from the current study showed that being able to establish shared goals between close others increases positive performance for female athletes. Recognizing the impact on relational reasons can ultimately influence the game performance of women's sports. Therefore, it is imperative for leaders, coaches, and players to all consider the relational reasons shared within an athletic program for team success in women sports teams.

LIST OF REFERENCES

Adie, J., Duda, J., & Ntoumanis, N. (2008). Autonomy support, basic need satisfaction and the optimal functioning of adult male and female sport participants: A test of basic needs theory. *Motivation and Emotion, 32,*189-199.

Cetinkalp, Z. (2012). Men's and women's achievement goals and self-perception in sport situational motivation. *Studia Psychlogica, 54*, 23-35.

Coatsworth, J., & Conroy, D. (2009). The effects of autonomy-supportive coaching, need satisfaction, and self-perceptions on initiative and identity in youth swimmers. *Developmental Psychology, 45,* 320-328.

Conroy, D. & Coatsworth, J.. (2007). Coaching behaviors associated with changes in fear of failure: Changes in self-talk and need satisfaction as potential mechanisms. *Journal of Personality, 75,* 383-419.

Coteron, J., Sampedro, J., Franco, E., Perez-Tejero, J., Refoyo, & Ignacio. (2013). The role of basic psychological needs in predicting dispositional flow of basketball players in training. Differences by sex. *Revista de Psicologia del Deporte, 22,* 187-190.

Cremades, J., Flournoy, B., & Gomez, C. (2012). Scholarship status and gender differences in motivation among U.S. collegiate track and field athletes.

Deci, E., & Ryan, R. (2000). The 'what' and 'why' of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry, 11,* 227-268.

Evans, B., Eys, M, & Wolf, S. (2013). Exploring the nature of interpersonal influence in elite individual sport teams. *Journal of Applied Sport Psychology, 25,* 448-462.

Felton, L., & Jowett, S. (2013). 'What do coaches do' and 'how do they relate': Their effects on athletes' psychological needs and functioning. *Scandinavian Journal of Medicine and Science in Sports, 23*, 130-139.

Fitzsimons, G. & Shah, J. (2008). How goal instrumentality shapes relationship evaluations. *Journal of Personality and Social Psychology, 95*, 319-337.

Flood, S.. & Hellstedt, J. (1991). Gender differences in motivation for intercollegiate athletic participation. *Journal of Sport Behavior, 14,* 159-17.

Gillet, N., Berjot, S., & Gobance, L. (2009). A motivational model of performance in the sport domain. *European Journal of Sport Science, 9,* 151-158.

Gore, J. (2014). The influence of close others in daily goal pursuit. *Journal of Social and Personal Relationships, 31,* 71-92.

Gore, J., Bowman, K., Grosse, C., & Justice, L. (2016). Let's be healthy together: Relational motivation for physical health is more effective for women. *Motivation and Emotion, 40,* 36-55.

Gore, J. , & Cross, S. (2006). Pursuing goals for us: Relationally autonomous reasons in long-term goal pursuit. *Journal of Personality and Social Psychology, 90*, 848-861. doi:10.1037/0022-3514.90.5.848.

Gore, J. S., Hester, R., Spegal, L., Kavanaugh, K., & Nakai, Y. (2018). Relational mechanisms in the goal pursuit process. *Personal Relationships, 25*, 134-156.

Greguras, G., & Diefendorff, J. (2009). Different fits satisfy different needs: Linking person-environment fit to employee commitment and performance using self-determination theory. *Journal of Applied Psychology, 94,* 465-477.

Hagger, M. , Chatzisarantis, N. , Hein, V., Pihu, M., Soós, I., & Karsai, I. (2007). The perceived autonomy support scale for exercise settings (PASSES): Development, validity, and cross-cultural invariance in young people. *Psychology of Sport and Exercise, 8*, 632-653. doi:10.1016/j.psychsport.2006.09.001.

Halvari, H., Ulstad, S.O., Bagoien, T.E., & Skjesol, K. (2009). Autonomy support and its links to physical activity and competitive performance: Mediations through motivation, competence, action orientation and harmonious passion, and the moderator role or autonomy support by perceived competence. *Scandinavian Journal of Educational Research, 53*, 533-555.

Joesaar, H. & Hein, V. (2011). Psychosocial determinants of young athletes' continued participation over time. *Perceptual and Motor Skills, 113,* 51-66.

Kipp, L., & Amorose, A. (2008). Perceived motivational climate and self-determined motivation in female high school athletes. Journal of Sport Behavior, 31 (2), 108-129.

Lonsdale, C., Hodge, K., & Rose, E. (2009). Athlete burnout in elite sport: A self-determination perspective. *Journal of Sports Sciences, 27,* 785-795.

Matosic, D. & Cox, A. (2014). Athletes' motivation regulations and need satisfaction across combinations of perceived coaching behaviors. *Journal of Applied Sport Psychology, 26,* 302-317.

Pope, C & Gore, J. (2018). Motivation and performance in sport. *Manuscript in Preparation.*

Reinboth, M. & Duda, J. (2006). Perceived motivational climate, need satisfaction and indices of well-being in team sports: A longitudinal perspective. *Psychology of Sport Exercise, 7,* 269-286.

Sari, I. (2015). Satisfaction of basic psychological needs and goal orientation in young athletes: A test of basic psychological needs theory. *Kinesiology, 47*, 159-168.

Schuler, J., Wegner, M., & Knechtle, B. (2014). Implicit motives and basic need satisfaction in extreme endurance sports. *Journal of Sport and Exercise Psychology, 36*, 293-302.

Schuler, J. & Brandstatter, V. (2013). How basic need satisfaction and dispositional motives interact in predicting flow experience in sport. *Journal of Applied Social Psychology, 43,* 687-705.

Senecal, J., Loughead, T., & Bloom, G. (2008). A season-long team-building intervention: Examining the effect of team goal setting on cohesion. *Journal of Sport and Exercise Psychology, 30*, 186-199.

Sheldon, K. , & Elliot, A. (1998). Not all personal goals are personal: Comparing autonomous and controlled reasons for goals as predictors of effort and attainment. *Personality and Social Psychology Bulletin, 24, 546 –*557.

Sheldon, K. , & Elliot, A. (1999). Goal striving, need satisfaction, and longitudinal well-being: The self-concordance model. *Journal of Personality and Social Psychology, 76,* 482– 497.

Sheldon, K. , Elliot, A. , Kim, Y., & Kasser, T. (2001). What is satisfying about satisfying events? Testing 10 candidate psychological needs. *Journal of Personality and Social Psychology, 80*, 325–339.

Sheldon, K. & Watson, A. (2011). Coach's autonomy support is especially important for varsity compared to club and recreational athletes. *International Journal of Sports Science and Coaching, 6,* 109-123.

Smith, A., Ntoumanis, N., & Duda, J. (2007). Goal striving, goal attainment, and well-being: Adapting and testing the self-concordance model in sport. *Journal of Sport and Exercise Psychology, 29,* 763-782.

Spray, C., Wang, C., Biddle, S., & Chatzisarantis, N. (2006). Understanding motivation in sport: An experimental test of achievement goal and self determination theories. *European Journal of Sport Science, 6,* 43-51.

Szarabajko, A., Gore, J., & Katzman, J. (under review). Winning for our sake: Relational motivation in athletic performance. *Journal of Applied Sports Psychology.* Manuscript under review.

Van der Pol, P., Kavussanu, M., & Kompier, M. (2015). Autonomy support and motivational responses across training and competition in individual and team sports. *Journal of Applied Social Psychology, 45*, 697-710.

APPENDICIES

Appendix A: Daily Motives Survey

Appendix A: Daily Motives Survey

Please select the ID number that was assigned to you _____

(ID number is provided in email reminder)

Please use the following scale to rate the statements:

1	2	3	4	5
Strongly Disagree	Disagree Somewhat	Neutral	Agree Somewhat	Strongly Agree

TODAY, I devoted time and energy to my sport because…

1. ____ The situation demands it.
2. ____ It is important to a close teammate of mine.
3. ____ It provides me with fun and enjoyment.
4. ____ I would let a teammate down if I did not.
5. ____ I really believe it is an important thing to do.
6. ____ I would feel left out from the team if I did not.
7. ____ I would feel guilty, ashamed, or anxious if I did not.
8. ____ The teammates involved make it enjoyable.
9. ____ It strengthens a relationship with someone on the team.
10. ____ A teammate I am close to thinks it is enjoyable.
11. ____ A teammate I am close to is pursuing the same, and we both enjoy it.
12. ____ It allows me to express my independence and individuality.
13. ____ It gives me a sense of control in my life.
14. ____ I worked hard today in practice.

Appendix B:Recruitment Statement

Appendix B: Recruitment Statement

Hello! My name is Zipporah Foster and I am a General Psychology graduate student here at Eastern Kentucky University. I am currently working on a research project under Dr. Jonathan Gore in the Psychology Department. We are interested in examining motivation in athletes. More specifically, we are interested in how different forms of motivation relate to practice and game performance in sports. We intend to examine reasons for participation and performance levels over the course of a season.

Starting in January, you will be asked to complete a total of 16 surveys concerning reasons for participating in basketball. The surveys will be sent out twice a week, and a reminder will be sent out thorough email. To remain anonymous, an ID number will be assigned to you for each survey.

For your participation, you will receive one Colonel Challenge Point per survey. If you complete all 16 surveys on time, you will receive four extra Colonel Challenge Points. The total possible points that can be received for the completion of this survey is 20 points per person. This means that the team will have the opportunity to receive 340 challenge points. This research project has been approved by Chrissy Roberts (Women's Basketball Head Coach), Kirk Moats (Director of Compliance), and Joshua Shipp (Athletic Academic Advisor and Colonel Challenge Points Coordinator). I hope that you will be willing to work with us and I will be emailing you a consent statement with more information.

If you have any questions about the study, you may contact me at Zipporah_foster2@mymail.eku.edu.

Thank you!

Appendix C: Informed Consent Form

Appendix C: Informed Consent Form

Hello! My name is Zipporah Foster and I am a General Psychology graduate student here at Eastern Kentucky University. Starting in January, you will be asked to complete a survey concerning reasons for participating in basketball. You will be sent surveys twice, a week over the course of 8 weeks, for a total of 16 surveys. Your participation should not take longer than 3 minutes. If you agree to participate, you will receive one Colonel Challenge Point per survey. If you complete all 16 surveys on time you will receive four extra Colonel Challenge Points. The total points that can be received for the completion of this survey would be 20 points per person. This means the team will have the opportunity to earn up to 340 points for participation in this study!

Participation is voluntary, and you have the right to refuse to answer any questions or withdraw from the experiment at any time without giving prior notice and without penalty. We will email you an assigned ID number for you will use for each survey. We will also be assessing your practice and game performance during these 8 weeks. Practice performance will be obtained from observing practices and game performance will be obtained from the OVC statistics. If you would like to know more about the study, you may contact me at Zipporah_foster2@mymail.eku.edu.

Thank you for participating!

Appendix D: Example Email Reminder

Appendix D: Example Email Reminder

Subject: Survey Reminder.

Good morning.

Below is the survey monkey link for today. Please complete this survey by 3pm today. When the survey asks for the ID number that was assigned to you, please select *2*** (this number would be the ID code that I have assigned them*).* If you have any questions, feel free to contact me at Zipporah_foster2@mymail.eku.edu. Thank you!

https://www.surveymonkey.com/r/DP2RKLS

Sincerely,

Zipporah Foster

MS General Psychology Graduate Student

Eastern Kentucky University

Appendix E: Debriefing Form

Appendix E: Debriefing Form

Thank you for your participation in my research! The purpose of this study was to identify motivational outcomes that impact female student-athletes and their daily performance levels. These motivational outcomes emphasized relationally-autonomous reasons (RARs) and personally-autonomous reasons (PARs) through daily performance (i.e. differences in practice and game performance. This study predicts that (1) daily levels of RARs and PARs are both positively associated with both practice and game performance, whereas daily levels of controlled reasons (CRs) are negatively associated with practice and game performance, (2) the positive association between RARs and performance will be stronger than PARS and performance, (3) the association between PARs and practice performance will be stronger than PARs and game performance. The association between RARs and game performance will be stronger than RARs and practice performance. The measures used from this study include a self-developed player performance scale and Gore and Cross' (2006) 13-item relational motivation survey. The player performance scale measures daily practice performance and the 13-item survey measures personal and relational reasons for motivation. Game performance will be obtained from OVC statistics for the current season.

We hope to understand motivational reasons for female participation in sports and how relational factors impact motivation in team settings. This information can be useful to researchers, athletic organizations, and future athletes. If you have any questions, please contact me at Zipporah_foster2@mymail.eku.edu.

For more information about this research, please refer to the following papers:

Gore, J. S., & Cross, S. E. (2006). Pursuing goals for us: Relationally autonomous reasons in long-term goal pursuit. *Journal of Personality and Social Psychology, 90*, 848-861. doi:10.1037/0022-3514.90.5.848.

Gore, J. S. (2014). The influence of close others in daily goal pursuit. *Journal of Social and Personal Relationship, 31*, 71-92.