

Bowling Green State University

ScholarWorks@BGSU

Masters of Education in Human Movement,
Sport, and Leisure Studies Graduate Projects

Human Movement, Sport, and Leisure Studies

2020

Examining the Role of Goal Orientations and Self-Handicapping Behavior on Enjoyment and Anxiety in High School Basketball Athletes

BreAysia Moorer

Bowling Green State University, bmoorer@bgsu.edu

Follow this and additional works at: https://scholarworks.bgsu.edu/hmsls_mastersprojects

Repository Citation

Moorer, BreAysia, "Examining the Role of Goal Orientations and Self-Handicapping Behavior on Enjoyment and Anxiety in High School Basketball Athletes" (2020). *Masters of Education in Human Movement, Sport, and Leisure Studies Graduate Projects*. 82.

https://scholarworks.bgsu.edu/hmsls_mastersprojects/82

This Article is brought to you for free and open access by the Human Movement, Sport, and Leisure Studies at ScholarWorks@BGSU. It has been accepted for inclusion in Masters of Education in Human Movement, Sport, and Leisure Studies Graduate Projects by an authorized administrator of ScholarWorks@BGSU.

EXAMINING THE ROLE OF GOAL ORIENTATIONS AND SELF-HANDICAPPING
BEHAVIOR ON ENJOYMENT AND ANXIETY IN HIGH SCHOOL BASKETBALL
ATHLETES

BreAysia Moorer

A Master's Project

Submitted to the Graduate College of Bowling Green State University in partial fulfillment of the
requirements for the degree of

MASTER OF EDUCATION

May 2020

Project Advisor:

Dr. David A. Tobar

Second Reader:

Dr. Nancy E. Spencer

ABSTRACT

The purpose of this study was to investigate the relationships among goal orientation, self-handicapping, enjoyment, and anxiety in high school varsity girls' basketball athletes. Female high school basketball athletes ($N = 5$; ages 15-17) from a Midwestern public high school completed questionnaires at one time point that included a demographics questionnaire, the 2×2 Achievement Goals Questionnaire for Sport (AGQ-S), Sport Enjoyment Scale (SES), Sport Anxiety Scale-2 (SAS-2), Performance Failure Appraisal Inventory-Short (PFAI-S), and Self-Handicapping Scale (SHS). Pearson correlation coefficients were used to examine the relationships between goal orientation, self-handicapping, enjoyment, anxiety, and fear of failure. Results of Pearson correlation coefficients found that anxiety and self-handicapping were positively correlated with fear of failure ($r = .837$ and $r = .843$, respectively). Enjoyment was positively correlated with performance-avoidance goal orientation ($r = .887$). The results of this study suggest that athletes with high levels of fear of failure may have more anxiety and engage in self-handicapping strategies. The results of this study also suggest that performance-avoidance goal orientation produces higher levels of enjoyment. Overall, this study provided evidence that there are significant relationships among the variables of goal orientation, self-handicapping, enjoyment, and anxiety in female high school basketball athletes.

ACKNOWLEDGEMENTS

First, I would like to thank my advisor, Dr. David Tobar, whose contribution was essential to the creation, development, and completion of this project. I am not only tremendously grateful for all of the time, effort, patience, and guidance that Dr. Tobar has given me throughout this research process, but also throughout my growth as an academic through this master's program. Additionally, I would like to thank my second reader, Dr. Nancy Spencer, for taking the time to be a part of this project. Her expertise was irreplaceable through the development of this study, providing great feedback and suggestions.

Last, but certainly not least, I would also like to thank my parents, Marc Moorer, CarLisa Johnson, and Luther Johnson Jr. They have not only been supportive throughout this long process, but also instilled in me the hard work and dedication that it takes to complete this type of project. My entire family, loved ones, and community have helped shape me into the person that I am today, and I do not know where I would be without them.

BreAysia Moorer

Bowling Green State University

TABLE OF CONTENTS

	Page
INTRODUCTION.....	1
Achievement Goal Theory.....	2
Self-Handicapping.....	3
Problem Statement.....	4
Hypotheses.....	4
Research Questions.....	4
LITERATURE REVIEW.....	6
Achievement Goal Theory.....	6
Self-Handicapping.....	12
Factors That Elicit Self-Handicapping.....	13
METHOD.....	15
Participants.....	15
Instruments.....	15
Demographic Information.....	15
The 2 × 2 Achievement Goals Questionnaire for Sport.....	16
Sport Enjoyment Scale.....	16
Sport Anxiety Scale-2.....	17
Performance Failure Appraisal Inventory-Short.....	17
Self-Handicapping Scale.....	18
Procedure.....	18
Data Analysis.....	20

RESULTS.....	22
Descriptive Statistics.....	22
Pearson Correlation Coefficients.....	22
Goal Orientations.....	22
Fear of Failure.....	23
DISCUSSION.....	24
Goal Orientations and Enjoyment.....	24
Predictors of Fear of Failure.....	25
Limitations.....	26
Implications.....	26
Future Directions.....	27
Summary.....	28
REFERENCES.....	29
APPENDIX A. INFORMED ASSENT FORM.....	37
APPENDIX B. INFORMED PARENTAL CONSENT FORM.....	41
APPENDIX C. DEMOGRAPHIC INFORMATION.....	45
APPENDIX D. 2 × 2 ACHIEVEMENT GOALS QUESTIONNAIRE FOR SPORT.....	47
APPENDIX E. SPORT ENJOYMENT SCALE.....	49
APPENDIX F. SPORT ANXIETY SCALE-2.....	51
APPENDIX G. PERFORMANCE FAILURE APPRAISAL INVENTORY – SHORT...	53
APPENDIX H. SELF-HANDICAPPING SCALE.....	55
APPENDIX I. CORRELATION MATRIX.....	57

LIST OF TABLES

Table		Page
1	Demographic Statistics of the Study Sample.....	15
2	Study Design Outline.....	20
3	Descriptive Statistics for Five Female Basketball Players.....	22

Introduction

Sport is a large part of the high school experience in America. Millions of youth participate in high school sport programs around the nation, but the probability of reaching elite levels of competition after graduating from high school is slim to none (“Probability of Competing Beyond High School”, n.d.). With these odds, the pressure to perform becomes greater. While combating pressure, various approaches may become prevalent and diminish an athlete’s enjoyment of the activity (Hanton, Fletcher, & Coughlin, 2005). In addition to approaches such as self-handicapping and different types of goal orientations, pressure may evoke feelings of anxiety and fear of failure that may potentially lead to lower levels of enjoyment (Coudeville, Sinnapah, Charles-Charlery, Baillot, & Hue, 2015; Gardner, Vella, & Magee, 2017b).

Along with pressure from coaches and family, athletes at the high school level encounter demands such as spending time with friends and coursework. These factors may have an impact on athletes’ enthusiasm, behavior, and will to play. Additional factors, such as a ‘winning is everything’ environment may lead to fear of failure, increased anxiety, and less enjoyment (Breiger, Cumming, Smith, & Smoll, 2015). Researchers analyzing the undesirable effects of competitive sport have focused on males, elite level youth, collegiate and professional athletes. However, many youth sport participants do not have the resources to train at the elite level and, even if they do, there is very little chance they compete at an elite level beyond high school. Minimal research has been published regarding high school boys’ basketball athletes to determine if their negative experiences with sport are parallel to those of collegiate varsity and professional athletes, but there are no published studies regarding high school girls’ basketball

athletes. The purpose of this study was to examine the relationships among goal orientation, self-handicapping, enjoyment, and anxiety in high school varsity girls' basketball athletes.

Achievement Goal Theory

The current paper is grounded in Achievement Goal Theory (AGT). Specifically, the 2×2 achievement goal framework will guide the current study (Elliot, 1999). Central to AGT, the distinguishing feature of achievement behavior is that a person aims for competence, or at least the impression of competence (Maehr & Nicholls, 1980). How an individual typically evaluates success is referred to as their goal orientation (Ring & Kavussanu, 2018b). It is noteworthy that the literature varies on the terms for these goal orientations, usually they are referred to as ego orientation and task orientation. Originally, they were referred to as performance orientation and mastery orientation, and the more current literature has gone back towards these terms. Thus, in the current paper, the terms performance orientation and mastery orientation will be used. These two contrasting goal orientations (i.e., performance orientation and mastery orientation) have an impact on actions and the subjective definition of success.

In performance orientation, social comparison determines ability and demonstrating more competence than others is prioritized (Cervelló, Escartí, & Guzmán, 2007). Thus, the inability to display superiority or inability to prevent showing incompetence is viewed as failure. In mastery orientation, there is no comparison to others, only to the self, and learning the skill is prioritized (Cervelló et al., 2007). Thus, a lack of progress in learning a new skill is viewed as failure. In the branched concept of AGT, it is performance orientation and mastery orientation that form how one perceives success and in turn guides goal-related actions. However, these orientations were extended by the 2×2 achievement goal framework (Elliot & McGregor, 2001) to include valence (i.e., focus of attainment). That is, an individual is either making great efforts to avoid

failure (i.e., avoidance) or making great efforts to succeed (i.e., approach). Accordingly, the 2 × 2 achievement goal framework is comprised of four goal orientations: performance-approach, performance-avoidance, mastery-approach, and mastery-avoidance (Elliot & McGregor, 2001).

Self-Handicapping

Relative to AGT, it is important to acknowledge that the behavior of an individual may be affected by the different forms of goal orientation. Athletes may “actively construct factors that impede their performance” to use as an excuse for possible unsatisfactory performance (Finez, Berjot, Rosnet, Cleveland, & Tice, 2012, p. 1757). This strategy is known as self-handicapping. Self-handicapping is defined as using plans of action to make success more valuable or shield from failure (Coudevylle et al., 2015). Self-handicapping happens prior to the task, as opposed to attributions that are made after participation. Individuals who utilize self-handicapping behaviors view prior impediments, which may be real or non-existent, as reasonable excuses. For example, a favorable performance after not putting forth too much effort or feeling sick are linked with the ability to succeed despite those impediments, whereas negative performance outcomes are attributed to those impediments. In other words, it is a win-win scenario for the individual.

Researchers have indicated that there are numerous different mental and emotional influences on self-handicapping strategies such as fear of failure, low self-esteem, anxiety, introversion, and performance goals (Akin, 2012; Coudevylle et al. 2015; Rhodewalt, 1994; Strube, 1986; Zuckerman, Kieffer, & Knee, 1998). Moreover, Rhodewalt and Tragakis (2002) indicated, “To the extent that an individual chronically self-handicaps, one would expect that there would be deleterious effects on achievement and accomplishments” (p. 133). On the other

hand, self-handicapping may have possible benefits, such as the safeguarding of self-esteem and improvement of motivation from within (Deppe & Harackiewicz, 1996; Tice, 1991).

Problem Statement

High school athletes may encounter stressors that lead to unfavorable consequences associated with sport, such as enjoyment issues, self-handicapping behaviors, and high levels of anxiety. To excuse their lack of positive performance outcomes, athletes may seek circumstances that increase the odds of failure (Akin, 2012). Pressure from others to perform well may lead to anxiety in sport (Masaki, Maruo, Meyer, & Hajcak, 2017). There are a variety of reasons why athletes may experience anxiety, low enjoyment, and self-handicapping, but understanding of the connections among these variables in high school girls' basketball athletes is lacking in the literature. The purpose of this study was to examine the relationships among goal orientation, self-handicapping, enjoyment, and anxiety in high school varsity girls' basketball athletes.

Hypotheses

This study tested the hypotheses that mastery-approach orientation would be positively related to enjoyment and that mastery-avoidance, performance-approach, and performance-avoidance orientations would be negatively related to enjoyment. Another hypothesis was that fear of failure would be positively associated with self-handicapping and anxiety, and negatively associated with enjoyment.

Research Questions

The lack of research on the relationships between goal orientation, self-handicapping, enjoyment, and anxiety within high school varsity girls' basketball athletes has lead the researchers of this study to explore the following research question regarding these topics: Is

there a relationship among goal orientation, self-handicapping, enjoyment, anxiety, and fear of failure within high school varsity girls' basketball athletes?

Literature Review

The aim of this review of literature is to assist in understanding the topics of AGT, self-handicapping strategies, fear of failure, enjoyment, and anxiety. The focus of this chapter is to analyze different behavioral and motivational facets of participation in sport that include self-handicapping and Achievement Goal Theory. Another focus of this chapter is to review different components, theoretical concepts, and factors related to each topic.

Achievement Goal Theory (AGT)

The AGT asserts that two goal orientations, performance and mastery, are the main ways that success is evaluated (Ring & Kavussanu, 2018b). People who are performance-oriented evaluate performance by comparing themselves to others; i.e., they are successful when their ability is superior to that of their opponents (Lochbaum, Çetinkalp, Graham, Wright, & Zazo, 2016). On the other hand, people who are mastery-oriented describe victory and judge performance with the following in mind: grasping tasks, developing skills, gaining knowledge, and working as hard as possible. Furthermore, mastery-oriented athletes “measure improvement using self-referenced standards” (Palmer, Chinn, & Robinson, 2017, p. 2570). In other words, as long as their individual performance is getting better, then they are pleased with the outcome. When setting goals, athletes may center their attention on performance (comparing development to society’s standards, judging success in reference to competitors, etc.) or mastery (working to beat individual performances, becoming great at a task, etc.) (Ihsan, 2015). Performance orientation goes along with completing tasks with less exertion than others, feeling capable as long as performance is better than others, and being skilled according to the standards (Jaakkola, Ntoumanis, & Liukkonen, 2016). Personal growth is not a motivating factor to participate in sport in performance orientation (Schwebel, Smith, & Smoll, 2016).

While performance and mastery are the two main goal orientations, the state of athletes vary based on situational factors (Smoll & Smith, 2015). At any moment, an athlete's goal orientation can change. Practice is an example of a time when the same athlete who is more performance-oriented at games may become more mastery-oriented since practice has no official outcome against another team. Another example of an athlete being influenced by situational factors to enter a particular goal state is playing in a championship game. In this situation, an athlete who is usually mastery-oriented may become performance-oriented because of how important the game is.

Athletes with a high mastery orientation firmly believe that advancement in their skills or understanding is the best outcome; from their point of view, sport exists so that it can be mastered. In addition, mastery orientation is connected to decreased anxiety and the strength to endure obstacles (Haggard, Carr, & da Motta Veiga, 2018). Athletes whose main goal is to master a task, whether others do the same or not, are classified as mastery-oriented (Wayment & Walters, 2017). Mastery orientation is linked with enjoying the process to complete the mission at hand, while performance orientation is motivated by extrinsic rewards, such as trophies and medals (Koh & Wang, 2015).

Performance and mastery orientations represent different beliefs about the core reasons for involvement, contrasting standpoints on what drives athletes to give their utmost effort, and opposing stances on what defines success in sport. Performance orientation proposes that the purpose of sport is to show one's ability in comparison to others (Hwang, Machida, & Choi, 2017) and success is achieved when the opponent is outperformed (Allen, Taylor, Dimeo, Dixon, & Robinson, 2015). In general, athletes who are performance-oriented have been connected with "lower levels of moral functioning" (Allen et al., 2015, p. 900). Allen and colleagues (2015)

made this connection by asking elite athletes to complete a survey examining goal orientation and attitudes toward performance-enhancing drug use. The goal of mastery-oriented athletes is to conquer the challenges that go with mastering a sport through hard work (Ring & Kavussanu, 2018a). Allen et al. (2015) found that athletes with high performance orientation were linked, to a greater degree than athletes with high mastery orientation, with deceitful actions and risky behavior to achieve success. A pro-doping way of thinking was positively related to high performance orientation. Prior investigation found that goal orientation in youth athletes had a significant impact on sportsmanship (Lemyre, Roberts, & Ommundsen, 2002). In comparison to high performance-oriented athletes, youth sports participants with high mastery orientation regularly championed sportsmanship (Lemyre et al., 2002). High mastery-oriented athletes demonstrated the most respect for officials and rules. High performance orientation resulted in less respect for officials and rules.

Researchers have explored the association between goal orientation in sport and enjoyment. Enjoyment has been found to be a major reason for youth sports participation (Gardner, Vella, & Magee, 2017a). Enjoyment (or lack thereof) is a significant indicator of participation and dropout in sport, and heightened enjoyment is positively related to heightened mastery orientation (Gardner et al., 2017a; Gardner et al., 2017b). Researchers have analyzed the role that goal orientation plays when it comes to enjoyment in many circumstances. To the author's knowledge, only one study has made this relationship among basketball players the central point (Seifriz, Duda, & Chi, 1992). It was found that mastery-oriented behavior and enjoyment are positively related among high school boys' basketball athletes in the Midwest. Whether or not this finding would apply to high school girls' basketball players in the Midwest is an unresolved question.

Performance orientation and mastery orientation were explored by Elliot and McGregor (2001), who proposed a 2×2 framework that considered valence (i.e., performance-mastery dichotomy), another dimension to achievement motivation. Valence alludes to how an individual pays particular attention to competence. That is, an individual concentrates on the unfavorable possibility (i.e., defeat), which is regarded as an avoidance orientation, or the favorable possibility (i.e., victory), which is regarded as an approach orientation (Elliot & McGregor, 2001). Consequently, within the 2×2 framework, there are four contrasting goal orientations: performance-approach, performance-avoidance, mastery-approach, and mastery-avoidance. In performance-approach orientation, social comparison determines ability. Showing more competence than others is prioritized, and action is taken to reach success (Cervelló et al., 2007; Elliot & McGregor, 2001). For example, an athlete is striving to win the match. In contrast, in performance-avoidance orientation, social comparison still determines ability, but the individual is attempting to prevent failure and not showing poor ability is prioritized. For example, an athlete is striving to avoid getting outscored or scoring few points during a match. In mastery-approach orientation, there is no comparison to others, only to the self. The individual participates in the task in an attempt to succeed, and learning is prioritized (Elliot & McGregor, 2001). For example, an athlete strives to learn the correct form to shoot a free throw. In contrast, in mastery-avoidance orientation, there is still no comparison to others and learning is emphasized, but the individual is striving to avoid failure compared to past performances. For example, an athlete is striving to not do worse than their previous match. Each goal orientation should be regarded as its own separate element, as signified by Elliot and McGregor's (2001) results. To be specific, these goal orientations should be considered orthogonal (Brunel, 1999). An individual may be low or high for each of these orientations, and the goals each athlete sets

for demonstrating ability or competence may vary depending on the situation.

The 2×2 framework was expanded into the sport context by Conroy, Elliot, and Hofer (2003), using 356 college physical activity students who were also recreational athletes. The main purpose of the study was to discover if the 2×2 Achievement Goals Questionnaire (AGQ), developed by Elliot and McGregor (2001), was valid for use in a sport context. Conroy and colleagues (2003) found that the 2×2 framework was the best model fit to the data when compared to other models. Moreover, Conroy and colleagues (2003) sought to indicate external validity by gathering measures of fear of failure using the short form of the Performance Failure Appraisal Inventory (PFAI-S). Conroy and colleagues (2003) found that mastery-approach was not related to fear of failure at any time point and performance-approach was found to be significantly related to fear of failure at multiple time points. Additionally, performance-avoidance and mastery-avoidance were both significantly related to fear of failure at multiple time points. Performance-approach was found to be the weakest link with fear of failure (Pearson's r ranging from 0.16-0.23), mastery-avoidance had the strongest relationship with fear of failure (0.31-0.46) between the three orientations that were statistically significant, and performance-avoidance was similar to mastery-avoidance in terms of relationship strength (0.28-0.34) (Conroy et al., 2003). Overall, Conroy and colleagues (2003) showed that the 2×2 framework is a good model fit within sport.

Adie, Duda, and Ntoumanis (2008) conducted a study to further investigate the antecedents, consequences, and mediators of each goal orientation in the 2×2 framework. Specifically, they were exploring whether achievement goals could anticipate emotional ill- or well-being and whether cognitive assessment of competition (i.e., feeling threatened by competition) interceded that connection. The sample was 424 club-level athletes from six

different sports, 235 males and 189 females, from the United Kingdom. Adie and colleagues (2008) used the AGQ-S to measure the athletes' goal orientations. To measure self-esteem, the Physical Self-Description Questionnaire was used, which consists of eight items. For this assessment, participants rated how true each statement is on a 6-point Likert-type scale from 1 (false) to 6 (true). Athletes were given a theoretical situation about an upcoming competition and responded to the stem, "How would you typically think before such a competition?," to measure cognitive appraisal of sport competition, demonstrating how much they agreed with 10 statements alluding to the theoretical situation, on a 7-point Likert scale from 1 (not at all true of me) to 7 (very true of me). Negative and positive affect were measured using a questionnaire that included five items to assess negative affect and four items to assess positive affect. Negative affect included feeling unhappy, anxious, frustrated, depressed, and angry. Positive affect included feeling happy, joyful, pleased, and enjoyment/fun. Participants responded to the stem, "When playing my sport, I feel..." on a 7-point Likert scale from 1 (not very often) to 7 (all the time).

In the above study, Adie and colleagues (2008) found that mastery-approach orientation was negatively related to negative affect and threat appraisals. Moreover, mastery-approach orientation was positively related to positive affect, challenge appraisals, and self-esteem. Mastery-avoidance orientation was found to be negatively related to self-esteem, but was not significantly associated with positive affect or challenge appraisals (Adie et al., 2008). Moreover, mastery-avoidance orientation was positively related to negative affect and threat appraisals. Similar to mastery-avoidance, performance-approach orientation was found to be positively associated with negative affect and threat appraisals, and was found to be negatively associated with self-esteem (Adie et al., 2008). Additionally, performance-approach orientation was not

significantly related to positive affect or challenge appraisals. Performance-avoidance orientation was found to be positively associated with negative affect and threat appraisals (Adie et al., 2008). Moreover, performance-avoidance orientation was negatively associated with positive affect, challenge appraisals, and self-esteem. Additionally, threat and challenge appraisals were found to partially mediate the connection between measures of ill- and well-being and mastery-based orientations (Adie et al., 2008). That is, athletes with higher ratings of self-esteem and positive affect were more likely to have higher levels of mastery-approach orientation when the competition was viewed as a challenge. Furthermore, athletes with higher levels of negative affect were more likely to have higher levels of mastery-avoidance orientation when the competition was viewed as a threat. These findings indicate that positive feelings may improve when athletes are more mastery-approach oriented, as they are more likely to view competition as a challenge to make progress. On the other hand, the likelihood of experiencing negative feelings grows when athletes are more mastery-avoidance oriented, as they are more likely to be threatened by competition. The connection between ill- and well-being and either of the performance-based orientations was not mediated by cognitive appraisal.

Self-Handicapping

Jones and Berglas (1978) introduced the development of self-handicapping. Early on, it was clear that sport could be an area that may facilitate self-handicapping behavior. Jones and Berglas (1978), pioneers of self-handicapping research, used the example of the eager golfer who consistently avoids receiving lessons or even preparing on the driving range and stated, “self-handicappers are legion in the sports world” (p. 201). A few years later, self-handicapping was researched in sport for the first time using a sample of college golfers and swimmers (Rhodewalt, Saltzman, & Wittmer, 1984).

A considerable amount of research is carried out on approaches and interventions that may help athletes enhance their performance and their involvement in sport (Smoll & Smith, 2015). However, there are approaches that athletes may apply themselves that could be constraining their future success. One of these approaches is self-handicapping. Self-handicapping is defined as using plans of action to further improve the value of success or shield from failure (Coudevylle et al., 2015). That is, self-handicapping happens when a person looks for circumstances that will likely lead to failure before their competence is tested. From the viewpoint of the self-handicapper, prior obstacles, which may be real or non-existent, are seen as reasonable excuses.

Self-reported (or claimed) self-handicapping and behavioral self-handicapping are the two forms of self-handicapping (Jaconis, Boyd, Hartung, McCrea, Lefler, & Canu, 2016). Claimed strategies are impediments that are disclosed prior to a performance (i.e., feeling ill), while behavioral strategies include detectable impediments that individuals participate in before a task (i.e., going out the night before) (Leary & Shepperd, 1986). With this behavior, a person's perceived competence is preserved. The self-report or self-imposed impediments are used as excuses if the person fails, but described as obstacles that were conquered if they succeed. If they succeed despite the impediment, they are resilient, but failing is due to the conditions of the situation. This way, the person who is self-handicapping does not truly fail either way. A good self-image is more important than failure or success.

Factors That Elicit Self-Handicapping

There are qualities and circumstances that trigger self-handicapping. It has been demonstrated that fear of failure increases the likelihood that an individual will use self-handicapping behavior (L. Chen, M. Chen, Lin, Kee, & Shui, 2009; Correia & Rosado, 2018).

Fear of failure refers to when an individual avoids failure in evaluative settings because they believe that failure comes with negative feelings (McClelland, Atkinson, Clark, & Lowell, 1953). Essentially, the individual is fearful of the consequences of failure. This fear of failure leads to uneasiness in competitive settings, which may lead to the next predictor of self-handicapping: anxiety.

It has been demonstrated that high levels of anxiety are associated with increased use of self-handicapping strategies (Coudevylle, Martin Ginis, Famose, Gernigon, 2008). A reasonable explanation is that those with an inclination to self-handicap use anxiety as a self-handicapping strategy to protect from possible failure (Smith, Snyder, & Handelsman, 1982; Snyder, Smith, Augelli, & Ingram, 1985). Additionally, self-handicapping is motivated by uncertainty (the same mechanism responsible for anxiety) about performance outcome (Snyder & Higgins, 1988).

Another important factor that elicits self-handicapping behavior is enjoyment. That is, if the individual is enjoying an activity, then the individual will be less likely to self-handicap (Bailis, 2001). Among 534 youth physical education students, enjoyment was negatively related to self-handicapping (Ntoumanis, Taylor, & Standage, 2010).

The likelihood that an individual may self-handicap can increase based on their goal orientation (i.e., how they perceive success). Higher levels of self-handicapping have been related to higher levels of performance orientation (Kuczka & Treasure, 2005). However, self-handicapping was found to have a negative association with mastery orientation.

Researchers have examined select variables of interest in male athletes at all levels and female athletes at collegiate and professional levels. There is a paucity of research on female high school athletes. Moreover, no studies have examined the relationships among goal orientation, self-handicapping, enjoyment, and anxiety in high school girls' basketball athletes.

Method

Participants

The participants for this study were high school varsity girls' basketball athletes from a Midwestern public school. All five girls were African-American. Additional descriptive statistics for the sample are provided in Table 1.

Table 1

Demographic Statistics of the Study Sample of High School Varsity Basketball Athletes (N = 5)

Statistics	Age	Grade	Years in Sport	Years on Current Team
<i>Mean</i>	15.8	10.8	8.4	2.6
<i>SD</i>	.84	.84	3.44	1.14
<i>Min/Max</i>	15-17	10-12	5-13	1-4

Instruments

Demographic Information

Upon being informed about their rights as participants, athletes were given informed assent forms (see Appendix A) and, for their parents, informed parental consent forms (see Appendix B) to return to the primary researcher at the next meeting. During the next meeting, participants who agreed to participate and received permission from a parent completed a demographic questionnaire (see Appendix C), which was included in the data collection to provide descriptive information on the sample. Participants answered questions identifying their age, gender, race/ethnicity, grade, years competing in their current sport, and years on their current team.

The 2 × 2 Achievement Goals Questionnaire for Sport

The 2 × 2 Achievement Goals Questionnaire for Sport (AGQ-S) (Conroy et al., 2003) was used to analyze the goal orientations of participants (see Appendix D). The AGQ-S is a 12-item scale that gauges the levels of each goal orientation, using the 2 × 2 framework, for an individual. There are four subscales, consisting of three items each: mastery-approach (e.g., “I want to perform as well as it is possible for me to perform”), mastery-avoidance (e.g., “I worry that I may not perform as well as I possibly can”), performance-approach (e.g., “It is important to me to do well compared to others”), and performance-avoidance (e.g., “I just want to avoid performing worse than others”). Participants indicated how much they identified with each statement on a 7-point Likert scale ranging from 1 (not at all like me) to 7 (completely like me). Higher scores indicate a higher level of each goal orientation.

During evaluation of AGQ-S, Conroy and colleagues (2003) provided evidence, through a series of longitudinal factorial invariance and latent growth curve analyses, that the 2 × 2 framework was an appropriate model fit for examining goal orientations in sport. Moreover, evaluation demonstrated that the AGQ-S displayed good external validity. All four subscales, mastery-approach ($\alpha = .70$), mastery-avoidance ($\alpha = .82$), performance-approach ($\alpha = .88$), and performance-avoidance ($\alpha = .87$), demonstrated good internal consistency (Conroy et al., 2003). Cronbach’s alpha was calculated for each subscale with the current sample, mastery-approach ($\alpha = .68$), mastery-avoidance ($\alpha = .92$), performance-approach ($\alpha = .75$), and performance-avoidance ($\alpha = .71$), all demonstrating adequate internal consistency.

Sport Enjoyment Scale

The Sport Enjoyment Scale (SES) (Scanlan, Simons, Carpenter, Schmidt, & Keeler, 1993) was used to assess the enjoyment of participants (see Appendix E). On a 5-point scale

from 1 (none) to 5 (a lot), participants responded to 5 questions. Examples of questions include, “Do you like playing?” and “Are you happy playing?” The responses are summed to get an overall score. Higher levels of enjoyment are indicated by higher scores. Scanlan and colleagues (1993) reported good reliability with a Cronbach’s alpha of .95. Cronbach’s alpha could not be calculated for the current sample as there was too little variance in participant responses for each item.

Sport Anxiety Scale-2

The Sport Anxiety Scale-2 (SAS-2) (Smith, Smoll, Cumming, & Grossbard, 2006) is a 15-item scale that was used to evaluate anxiety (see Appendix F). For each item, participants responded to the stem “Before or while I compete in sports.” There are three subscales, consisting of five items each: worry (e.g., “I worry that I will play badly”), concentration disruption (e.g., “it is hard to concentrate on the game”), and somatic anxiety (e.g., “my body feels tense”). The SAS-2 is scored on a 4-point scale ranging from 1 (not at all) to 4 (very much). Higher scores indicate a higher level of anxiety for each subscale.

Ramis, Torregros, Viladrich, and Cruz (2017) reported good internal consistency for all three subscales, worry ($\alpha = .83$), concentration disruption ($\alpha = .79$), and somatic anxiety ($\alpha = .81$). Cronbach’s alpha was calculated for each subscale with the current sample, worry ($\alpha = .88$), concentration disruption ($\alpha = .79$), and somatic anxiety ($\alpha = .88$), all demonstrating adequate to good internal consistency.

Performance Failure Appraisal Inventory-Short

The short form version of the Performance Failure Appraisal Inventory (PFAI-S) (Conroy, Willow, & Metzler, 2002) was used to assess the level of participants’ beliefs in consequences of failing (see Appendix G). On a 5-point scale from -2 (do not believe at all) to

+2 (believe 100% of the time), with 0 being the midpoint (believe 50% of the time), participants responded to five statements. Examples of statements include, “When I am failing, I am afraid that I might not have enough talent” and “When I am not succeeding, people are less interested in me.” The responses are summed together and divided by five to get an overall score. A stronger general fear of failure is indicated by a higher score.

Conroy and colleagues (2002) found the PFAI-S to have good reliability, with .72 calculated as Cronbach’s alpha for the five items. Additionally, Cronbach’s alpha was calculated for the current sample demonstrating good internal consistency ($\alpha = .81$).

Self-Handicapping Scale

The 14-item Self-Handicapping Scale (SHS) (Rhodewalt, 1990) was included in data collection to analyze participants’ level of self-handicapping (see Appendix H). On a 6-point Likert-type scale ranging from 0 (disagree very much) to 5 (agree very much), participants indicated how much they agreed with each statement. Examples of items include, “I tend to put things off until the last moment” and “Sometimes I get so depressed that even easy tasks become difficult.” The responses were summed to get an overall score, with higher scores indicating higher levels of self-handicapping.

In the current study, Cronbach’s alpha was poor ($\alpha = .30$) with all items included. By removing three items (i.e., 8, 13, and 14), Cronbach’s alpha was increased to .77.

Procedure

Before recruiting participants, the researchers obtained permission from the Institutional Review Board of their university and the Office of Testing, Research, and Evaluation of the participants’ high school to conduct the current study. Once permission was received from both organizations, the primary researcher contacted the girls’ basketball head coach via email to

inform them of the proposed study and schedule a meeting. The coach preferred to meet over the phone. During the phone conversation, the primary researcher explained the purpose and procedures of the study in more detail, including what was expected of the coach. The coach informed the entire team about the meeting with the primary researcher, without inquiring about their interest in participating. The coach and his staff were not present at meetings, but a district employee was present at all times during the researcher's interaction with students. The risks and benefits of the study were discussed and the coach was given the option to receive the results of the study following completion. Only group-level results relating to the study and not individual data will be available to the coach. The coach was informed that each athlete had the right to decline participation or discontinue participation at any time.

Once the coach provided the team's availability, the primary researcher set up an initial in-person meeting with the team. During the initial meeting (see Table 2), the primary researcher explained the purpose of the study to the athletes. Benefits and risks were discussed and the athletes were informed that they could decline participation or discontinue participation at any time during the study. Then informed assent forms and informed parental consent forms were distributed, to be filled out and returned to the primary researcher two days from the initial meeting.

Table 2

Study Design Outline

Meeting	Time	Measures
Meeting 1: February 15	10 min.	Informed Assent Informed Parental Consent
Meeting 2: February 17	15 min.	Demographic Information The 2 × 2 Achievement Goals Questionnaire-Sport Sport Enjoyment Scale Sport Anxiety Scale-2 Performance Failure Appraisal Inventory-Short Self-Handicapping Scale

During the second and last in-person meeting, if athletes agreed to participate in the study and their parents gave permission, they were asked to complete the demographic questionnaire, the AGQ-S, the SES, the SAS-2, the PFAI-S, and the SHS. On the informed assent form, athletes created a unique code using the first three letters of their favorite food and the day of the month they were born. This allowed the researchers to ensure confidentiality. The athletes were asked to write their unique code on all of their completed questionnaires. After completing the questionnaires, participants enclosed them in an envelope that was provided to them by the primary researcher, and they returned the envelope to the primary researcher. The primary researcher then organized the questionnaires within the envelope and assigned the unique code of each athlete to their envelope. The envelopes were kept in a locked file cabinet in the locked office of the primary researcher's faculty advisor.

Data Analysis

The main purpose of the current study was to examine the relationship between goal orientations and enjoyment in high school basketball athletes. A secondary purpose of the study was to examine the relationship among self-handicapping behavior, enjoyment, fear of failure,

and anxiety in high school basketball players. The data was analyzed using IBM SPSS Statistics 25. Descriptive statistics were calculated for the demographic variables and outcome variables. For the research questions, Pearson correlation coefficients were calculated across all outcome variables.

Results

Descriptive Statistics

Descriptive statistics for all variables measured, including the mean score and standard deviation, are provided in Table 3.

Table 3

Descriptive Statistics for Five Female Basketball Players

Variables	<i>M</i>	<i>SD</i>	<i>Range</i>
Mastery-Approach Goal Orientation	19.2	1.48	4
Mastery-Avoidance Goal Orientation	13.6	6.19	14
Performance-Approach Goal Orientation	17	4.42	10
Performance-Avoidance Goal Orientation	16.2	5.17	13
Sport Enjoyment	24.8	.45	1
Sport Anxiety	22.2	5.36	11
Performance Failure Appraisal	-.84	.98	2.6
Self-Handicapping ⁺	21.4	7.44	18

⁺Statistics based on the modified scale with three items deleted

Pearson Correlation Coefficients

Pearson correlation coefficients were calculated for all variables included in the current study to assess the relationships between variables. The correlation matrix is provided in Appendix I.

Goal Orientations

Performance-approach goal orientation was found to be positively associated with mastery-avoidance goal orientation, $r = .906, p < .05$. Higher levels of performance-approach goal orientation were related to higher levels of mastery-avoidance goal orientation. Fifty percent of the variance is shared between these two variables.

Performance-avoidance goal orientation was found to be positively associated with performance-approach goal orientation, $r = .877, p < .10$. Higher levels of performance-avoidance goal orientation were related to higher levels of performance-approach goal orientation with 77% shared variance. Performance-avoidance goal orientation was also found to be positively associated with enjoyment, $r = .887, p < .05$. Higher levels of performance-avoidance goal orientation were related to higher levels of enjoyment with 77% shared variance.

Mastery-approach goal orientation was found to be negatively associated with age, grade, and years on their current team; r 's = $-.967$ to $-.967, p$'s $< .01$. Being younger and having less experience with the current team were related to higher levels of mastery-approach goal orientation. About 94-95% of the variance in mastery-avoidance goal orientation is shared with age, grade, and years in sport.

Fear of Failure

Fear of failure was found to be positively associated with anxiety, $r = .837, p < .10$. Higher levels of fear of failure were related to higher levels of anxiety with 70% shared variance. Fear of failure was also found to be positively associated with self-handicapping, $r = .843, p < .10$. Higher levels of fear of failure were related to higher levels of self-handicapping. About 71% of the variance is shared between self-handicapping and fear of failure.

Discussion

The main purpose of the current study was to examine the relationship between goal orientations and enjoyment in female high school basketball athletes. A secondary purpose of the study was to examine the relationship among self-handicapping behavior, enjoyment, fear of failure, and anxiety in high school basketball players. The following discussion will focus on relating the findings associated with both purposes of this study to the previous sport psychology literature. Finally, implications, limitations, and future directions will be discussed.

Goal Orientations and Enjoyment

Previous research indicates that performance orientation is associated with less enjoyment in youth athletes, while mastery orientation is associated with more enjoyment (Gardner et al., 2017a). Furthermore, previous research has demonstrated that higher levels of mastery-approach orientation and lower levels of performance- and mastery-avoidance orientations are associated with more enjoyment (Jaakkola et al., 2015). Thus, it was hypothesized that mastery-approach orientation would be positively related to enjoyment and that mastery-avoidance, performance-approach, and performance-avoidance orientations would be negatively related to enjoyment.

In the current study, Pearson correlation coefficients revealed that performance-avoidance orientation was the only significant predictor for enjoyment. The two variables were found to have a positive relationship. Higher levels of performance-avoidance goal orientation were related to higher levels of enjoyment. The current sample's mean was high on the scale for performance-avoidance orientation and enjoyment. This sample enjoyed playing their sport while being concerned with avoiding failure in front of others.

It is possible that this sample consisted of high ability girls who strove to beat others to demonstrate their ability and competence (performance). They did not want to look bad (avoidance), but they also did not have to worry about that and enjoyed the game because they were high performing and typically successful, winning 74% of their games. Another, maybe more likely, possibility is that the girls in this sample personally did not want to look bad, but enjoyed the game because their team performed well. These are possible explanations of the findings in this study, but further research is needed with more participants in different settings.

Predictors of Fear of Failure

As demonstrated by previous research, fear of failure positively predicts self-handicapping and anxiety in sport (L. Chen, et al, 2009; Correia & Rosado, 2018). Additionally, sport has been found to be less enjoyable for youth athletes when fear of failure is present (Sagar, Lavalley, & Spray, 2007). Therefore, it was hypothesized that higher levels of fear of failure would predict higher levels of self-handicapping and anxiety, and lower levels of enjoyment.

This hypothesis was only partially supported. While the current study's findings did support the hypothesis that higher levels of fear of failure would predict higher levels of self-handicapping and anxiety, a significant association between fear of failure and enjoyment was not found. It is possible that this might tie into the current study's previous finding that performance-avoidance orientation was the only significant predictor for enjoyment. That is, the girls in this sample avoided looking bad and fearing failure, but they enjoyed the game because the team performed well, winning 17 out of 23 games and having the City Series Player of the Year on their team. This could be a result of the strong, positive relationship between self-handicapping and anxiety, which were the only significant predictors of fear of failure.

The current sample's mean was low on the scale for fear of failure, self-handicapping, and anxiety. It is possible that the girls in this sample held themselves accountable for performance outcomes. They did not have feelings of nervousness about uncertain performance outcomes, but they also did not have to worry about that and were not fearful of the consequences of failure because their team performed well, winning the City Series post-season title for the second time in three years. These are possible explanations of the findings in the current study, but further research is needed with participants of more varied skill levels and teams who are less successful.

Limitations

There are various limitations in the current study that should be taken into consideration when interpreting the results. First, the team was already at the tail end of their season when assessment took place. When collecting measures such as fear of failure, goal orientations, and self-handicapping, it would have been ideal to collect data at the beginning of the season and at various other time points during the season to examine whether the relationship of enjoyment and anxiety to self-handicapping is different.

Second, this study was carried out with athletes at a Midwestern public high school and may not be made generally applicable to all athletes. This is displayed in the less-than-ideal sample size, which potentially affects the external validity. Additionally, the current study was conducted with basketball athletes, leaving other sports to be unrepresented.

Implications

The current study indicates that goal orientations are associated with enjoyment in high school athletes. Specifically, performance-avoidance goal orientation was found to be significantly related to more enjoyment. Thus, coaches may be able to increase enjoyment by

providing a climate that takes this type of achievement goal orientation into consideration (e.g., not placing athletes in situations that they are not ready for or that are too challenging for their level of experience). Coaches may wish to self-monitor their coaching style and their own achievement goal orientation to ensure they are promoting an appropriate climate that meets the needs of the athletes. Also, athletes with high levels of fear of failure were found to be more anxious and reported more self-handicapping behavior. Therefore, it would also be crucial to gauge how athletes cope with failure because controlling fear of failure may be preventive against self-handicapping and anxiety. Athletes' fear of failure could be a result of experiencing shame and embarrassment after a past failure, being afraid that others will lose interest, or even being taught to relate failure with consequences that are aversive (Gustafsson, Sagar, & Stenling, 2016). To minimize this fear, coaches could give helpful and consistent attention and feedback, not rooted in criticism, regardless of success or failure (Sagar et al., 2007).

Future Directions

It is important for future research to focus on the relationship between goal orientations and enjoyment with an ideal number of male and female basketball players. A sample that includes males and females could yield important findings because it is possible that males and females may interpret the same environment differently. Seifriz and colleagues (1992) only investigated this relationship with male basketball players and the current study only investigated female basketball players. Future research needs to focus on the relationship between goal orientations and enjoyment that includes both male and female basketball players from similar team climates or settings because, separately, higher levels of enjoyment is typically associated with mastery-approach behavior for male and female athletes.

Summary

The current study has suggested that goal orientations seem to impact high school basketball athletes, as performance-avoidance goal orientation positively predicted enjoyment. That is, higher levels of performance-avoidance goal orientation were related to higher levels of enjoyment. Future research should monitor this finding, especially among female basketball athletes, as other types of goal orientation may be associated with increased enjoyment. This research also suggested that fear of failure is positively associated with self-handicapping and anxiety. That is, higher levels of fear of failure were related to higher levels of self-handicapping and anxiety. Supportive and consistent attention and feedback from coaches that is not rooted in criticism could minimize fear of failure and promote positive emotions and behaviors.

References

- Adie, J. W., Duda, J. L., & Ntoumanis, N. (2008). Achievement goals, competition appraisals, and the psychological and emotional welfare of sport participants. *Journal of Sport & Exercise Psychology, 30*, 302-322. Retrieved from <https://journals.humankinetics.com/view/journals/jsep/jsep-overview.xml>
- Akin, A. (2012). Self-handicapping and burnout. *Psychological Reports, 110*, 187-196. doi:10.2466/01.02.14.PR0.110.1.187-196
- Allen, J., Taylor, J., Dimeo, P., Dixon, S., & Robinson, L. (2015). Predicting elite Scottish athletes' attitudes towards doping: Examining the contribution of achievement goals and motivational climate. *Journal of Sports Sciences, 33*, 899-906. doi:10.1080/02640414.2014.976588
- Bailis, D. S. (2001). Benefits of self-handicapping in sport: A field study of university athletes. *Canadian Journal of Behavioural Science, 33*, 213-223. doi:10.1037/h0087143
- Breiger, J., Cumming, S. P., Smith, R. E., Smoll, F., & Brewer, B. (2015). Winning, motivational climate, and young athletes' competitive experiences: Some notable sex differences. *International Journal of Sports Science & Coaching, 10*, 395-411. Retrieved from <https://journals.sagepub.com/home/spo>
- Brunel, P. C. Relationship between achievement goal orientations and perceived motivational climate on intrinsic motivation. *Scandinavian Journal of Medicine & Science in Sports, 9*, 365-374. doi:10.1111/j.1600-0838.1999.tb00258.x
- Cervelló, E. M., Escartí, A., & Guzmán, J. F. (2007). Youth sport dropout from the achievement goal theory. *Psicothema, 19*, 65-71. Retrieved from <https://www.apa.org/pubs/journals/psp/>

- Chen, L., Chen, M., Lin, M., Kee, Y., & Shui, S. (2009). Fear of failure and self-handicapping in college physical education. *Psychological Reports, 105*, 707-713.
doi:10.2466/PRO.105.3.707-713
- Conroy, D. E., Elliot, A. J., & Hofer, S. M. (2003). A 2×2 achievement goals questionnaire for sport: Evidence for factorial invariance, temporal stability, and external validity. *Journal of Sport & Exercise Psychology, 25*, 456-476. doi:10.1123/jsep.25.4.456
- Conroy, D. E., Willow, J. P., & Metzler, J. N. (2002). Multidimensional fear of failure measurement: The Performance Failure Appraisal Inventory. *Journal of Applied Sport Psychology, 14*, 76-90. doi:10.1080/10413200252907752
- Coudevylle, G. R., Martin Ginis, K. A., Famose, J.-P., & Gernigon, C. (2008). Effects of self-handicapping strategies on anxiety before athletic performance. *Sport Psychologist, 22*, 304-315. Retrieved from <https://journals.humankinetics.com/view/journals/tsp/tsp-overview.xml>
- Coudevylle, G. R., Sinnapah, S., Charles-Charlery, C., Baillot, M., & Hue, O. (2015). Impact of motivational climates on claimed self-handicapping strategies: Illustration in tropical environment. *Journal of Applied Sport Psychology, 27*, 384-397.
doi:10.1080/10413200.2015.1014975
- Deppe, R. K., & Harackiewicz, J. M. (1996). Self-handicapping and intrinsic motivation: Buffering intrinsic motivation from the threat of failure. *Journal of Personality & Social Psychology, 70*, 868-876. doi:10.1037/0022-3514.70.4.868
- Elliot, A. J. & McGregor, H. A. (2001). A 2×2 achievement goal framework. *Journal of Personality & Social Psychology, 80*, 501-519. doi:10.1037/0022-3514.80.3.501

- Finez, L., Berjot, S., Rosnet, E., Cleveland, C., & Tice, D. M. (2012). Trait self-esteem and claimed self-handicapping motives in sports situations. *Journal of Sports Sciences, 30*, 1757-1765. doi:10.1080/02640414.2012.718089
- Gardner, L. A., Vella, S. A., & Magee, C. A. (2017a). Continued participation in youth sports: The role of achievement motivation. *Journal of Applied Sport Psychology, 29*, 17-31. doi:10.1080/10413200.2016.1173744
- Gardner, L. A., Vella, S. A., & Magee, C. A. (2017b). Enjoyment and behavioral intention predict organized youth sport participation and dropout. *Journal of Physical Activity & Health, 14*, 861-865. doi:10.1123/jpah.2016-0572
- Gustafsson, A., Sagar, S. S., & Stenling, A. (2016). Fear of failure, psychological stress, and burnout among adolescent athletes competing in high level sport. *Scandinavian Journal of Medicine & Science in Sports, 27*, 2091-2102. doi:10.1111/sms.12797
- Haggard, D. L., Carr, J. C., & Da Motta Veiga, S. P. (2018). The moderating effects of co-rumination on the relationships between goal orientations and anxiety, satisfaction and deviance. *Journal of Managerial Issues, 30*, 378-398. Retrieved from <https://www.pittstate.edu/business/journals/journal-of-managerial-issues.html>
- Hanton, S., Fletcher, D., & Coughlan, G. (2005). Stress in elite sport performers: A comparative study of competitive and organizational stressors. *Journal of Sports Sciences, 23*, 1129-1141. doi:10.1080/02640410500131480
- Hwang, S., Machida, M., & Choi, Y. (2017). The effect of peer interaction on sport confidence and achievement goal orientation in youth sport. *Social Behavior & Personality, 45*, 1007-1018. doi:10.2224/sbp.6149

- Ihsan, S. (2015). Satisfaction of basic psychological needs and goal orientation in young athletes: A test of basic psychological needs theory. *Kinesiology*, *47*, 159-168. Retrieved from <http://www.kif.unizg.hr/en>
- Jaakkola, T., Ntoumanis, N., & Liukkonen, J. (2015). Motivational climate, goal orientation, perceived sport ability, and enjoyment within Finnish junior ice hockey players. *Scandinavian Journal of Medicine & Science in Sports*, *26*, 109-115.
doi:10.1111/sms.12410
- Jaconis, M., Boyd, S. J., Hartung, C. M., McCrea, S. M., Lefler, E. K., & Canu, W. H. (2016). Sex differences in claimed and behavioral self-handicapping and ADHD symptomatology in emerging adults. *ADHD Attention Deficit & Hyperactivity Disorders*, *8*, 205-214. doi:10.1007/s12402-016-0200-y
- Jones, E. E. & Berglas, S. (1978). Control of attributions about the self through self-handicapping strategies: The appeal of alcohol and the role of underachievement. *Personality & Social Psychology Bulletin*, *4*, 200-206.
doi:10.1177/014616727800400205
- Koh, K. T., & Wang, C. K. (2015). Gender and type of sport differences on perceived coaching behaviours, achievement goal orientations and life aspirations of youth Olympic games Singaporean athletes. *International Journal of Sport & Exercise Psychology*, *13*, 91-103.
doi:10.1080/1612197X.2014.932820
- Kuczka, K. K., & Treasure, D. C. (2005). Self-handicapping in competitive sport: Influence of the motivational climate, self-efficacy, and perceived importance. *Psychology of Sport & Exercise*, *6*, 539-550. doi:10.1016/j.psychsport.2004.03.007

- Leary, M. R., & Shepperd, J. A. (1986). Behavioral self-handicaps versus self-reported handicaps: A conceptual note. *Journal of Personality & Social Psychology, 51*, 1265-1268. doi:10.1037/0022-3514.51.6.1265
- Lemyre, P., Roberts, G. C., & Ommundsen, Y. (2002). Achievement goal orientations, perceived ability, and sportspersonship in youth soccer. *Journal of Sport Psychology, 14*, 120-136. doi:10.1080/10413200252907789
- Lochbaum, M., Çetinkalp, Z. K., Graham, K., Wright, T., & Zazo, R. (2016). Task and ego goal orientations in competitive sport: A quantitative review of the literature from 1989 to 2016. *Kinesiology, 48*, 3-29. doi:10.26582/k.48.1.14
- Maehr, M. L. & Nicholls, J. G. (1980). Culture and achievement motivation: A second look. In N. Warren (Ed.), *Studies in cross-cultural psychology* (2nd ed., pp. 221-267). New York, NY: Academic Press.
- Masaki, H., Maruo, Y., Meyer, A., & Hajcak, G. (2017). Neural correlates of choking under pressure: Athletes high in sports anxiety monitor errors more when performance is being evaluated. *Developmental Neuropsychology, 42*, 104-112. doi:10.1080/87565641.2016.1274314
- McClelland, D. C., Atkinson, J., Clark, R. A. & Lowell, E. L. 1953. *The achievement motive*, New York, NY: Appleton-Century-Crofts.
- Ntoumanis, N., Taylor, I. M., & Standage, M. (2010). Testing a model of antecedents and consequences of defensive pessimism and self-handicapping in school physical education. *Journal of Sports Sciences, 28*, 1515-1525. doi:10.1080/02640414.2010.511650

- Palmer, K. K., Chinn, K. M., & Robinson, L. E. (2017). Using achievement goal theory in motor skill instruction: A systematic review. *Sports Medicine*, *47*, 2569-2583.
doi:10.1007/s40279-017-0767-2
- Prapavessis, H., Grove, J., Maddison, R., & Zillmann, N. (2003). Self-handicapping tendencies, coping, and anxiety responses among athletes. *Psychology of Sport & Exercise*, *4*, 357-375. doi:10.1016/s1469-0292(02)00020-1
- Ramis, Y., Torregrosa, M., Viladrich, C., & Cruz, J. (2017). The effect of coaches' controlling style on the competitive anxiety of young athletes. *Frontiers in Psychology*, *8*, 1-8.
doi:10.3389/fpsyg.2017.00572
- Rhodewalt, F. (1990). Self-handicappers: Individual differences in the preference for anticipatory self-protective acts. In R. Higgins, C. R. Snyder, & S. Berglas, (Eds.), *Self-handicapping: The paradox that isn't* (pp. 69-106). New York, NY: Guilford Press.
- Rhodewalt, F. (1994). Conceptions of ability, achievement goals, and individual differences in self-handicapping behavior: On the application of implicit theories. *Journal of Personality*, *62*, 67-85. doi:10.1111/j.1467-6494.1994.tb00795.x
- Rhodewalt, F., Saltzman, A. T., & Wittmer, J. (1984). Self-handicapping among competitive athletes: The role of self-esteem protection. *Basic & Applied Social Psychology*, *5*, 197-209. doi:10.1207/s15324834basp0503_3
- Rhodewalt, F., & Tragakis, M. (2002). Self-handicapping and the social self: The cost and rewards of interpersonal self-construction. In J. P. Forgas & K. D. Williams (Ed.), *The social self: Cognitive, interpersonal, and intergroup perspectives* (pp. 121-140). New York, NY: Psychology Press.

- Ring, C., & Kavussanu, M. (2018a). Ego involvement increases doping likelihood. *Journal of Sports Sciences, 36*, 1757-1762. doi:10.1080/02640414.2017.1415781
- Ring, C., & Kavussanu, M. (2018b). The impact of achievement goals on cheating in sport. *Psychology of Sport & Exercise, 35*, 98-103. doi:10.1016/j.psychsport.2017.11.016
- Sagar, S. S., Lavalley, D., & Spray, C. M. (2007) Why young elite athletes fear failure: Consequences of failure. *Journal of Sports Sciences, 25*, 1171-1184.
doi:10.1080/02640410601040093
- Scanlan, T. K., Simons, J. P., Carpenter, P. J., Schmidt, G. W., & Keeler, B. (1993). The sport commitment model: Measurement development for the youth-sport domain. *Journal of Sport & Exercise Psychology, 15*, 16–38. Retrieved from <https://journals.humankinetics.com/view/journals/jsep/jsep-overview.xml>
- Schwebel, F. J., Smith, R. E., & Smoll, F. L. (2016, March). Measurement of perceived parental success standards in sport and relations with athletes' self-esteem, performance anxiety, and achievement goal orientation: Comparing parental and coach influences. *Child Development Research, 1*-13. doi:10.1155/2016/7056075
- Seifriz, J. J., Duda, J. L., & Chi, L. (1992). The relationship of perceived motivational climate to intrinsic motivation and beliefs about success in basketball. *Journal of Sport & Exercise Psychology, 14*, 375-391. doi:10.1123/jsep.14.4.375
- Smith, R. E., Smoll, F. L., Cumming, S. P., & Grossbard, J. R. (2006). Measurement of multidimensional sport performance anxiety in children and adults: The Sport Anxiety Scale-2. *Journal of Sport & Exercise Psychology, 28*, 479–501.
doi:10.1123/jsep.28.4.479

- Smith, T. W., Snyder, C. R., & Handelsman, M. M. (1982). On the self-serving function of an academic wooden leg: Test anxiety as a self-handicapping strategy. *Journal of Personality & Social Psychology, 42*, 314-321. doi:10.1037/0022-3514.42.2.314
- Smoll, F. L., & Smith, R. E. (2015). Conducting evidence based coach-training programs: A social-cognitive approach. In J. M. Williams., & V. Krane (Ed.), *Applied sport psychology: Personal growth to peak performance* (pp. 359-383). New York, NY: McGraw-Hill Education.
- Snyder, C. R., & Higgins, R. L. (1988). Excuses: Their effective role in the negotiation of reality. *Psychological Bulletin, 104*, 23-35. doi:10.1037/0033-2909.104.1.23
- Snyder, C. R., Smith, T. W., Augelli, R. W., & Ingram, R. E. (1985). On the self-serving function of social anxiety: Shyness as a self-handicapping strategy. *Journal of Personality & Social Psychology, 48*, 970-980. doi:10.1037/0022-3514.48.4.970
- Strube, M. J. (1986). An analysis of the self-handicapping scale. *Basic & Applied Social Psychology, 7*, 211-224. doi:10.1207/s15324834basp0703_4
- Tice, D. M. (1991). Esteem protection or enhancement? Self-handicapping motives and attributions differ by trait self-esteem. *Journal of Personality & Social Psychology, 60*, 711-725. doi:10.1037/0022-3514.60.5.711
- Wayment, H. A., & Walters, A. S. (2017). Goal orientation and well-being in college athletes: The importance of athletic social connectedness. *Journal of Sports Sciences, 35*, 2114-2120. doi:10.1080/02640414.2016.1257147
- Zuckerman, M., Kieffer, S. C., & Knee, C. R. (1998). Consequences of self-handicapping: Effects on coping, academic performance, and adjustment. *Journal of Personality & Social Psychology, 74*, 1619-1628. doi:10.1037/0022-3514.74.6.1619

Appendix A. Informed Assent Form



BOWLING GREEN STATE UNIVERSITY
School of Human Movement, Sport, & Leisure Studies

ASSENT FORM

Key Information

I am asking you to participate in a study on goal setting, facing challenges, enjoyment, and behavior in basketball. If you agree to participate and you get permission from your parents, you will fill out six questionnaires about yourself. This will take about 16 minutes of your time before practice and is completely optional. Your information will not be shared with anyone. Your participation will not only help coaches understand how to increase enjoyment, but also teach you about your motivational style in basketball. This study has very little risks, no greater than what happens in everyday life.

More Information

INTRODUCTION OF THE RESEARCHER:

My name is BreAysia Moorer. I am a graduate student in the School of Human Movement, Sport, and Leisure at Bowling Green State University. My advisor is Dr. David Tobar, an associate professor. You are invited to participate in a study on goal setting, facing challenges, enjoyment, and behavior in basketball.

REASON FOR THE STUDY:

The reason for this study is to see how goals, facing challenges, enjoyment, and behavior affect each other in high school basketball athletes. There are no direct benefits to participants.

WHAT WILL HAPPEN DURING THE STUDY:

If you want to participate and your parents give permission, you will fill out six questionnaires. These will be filled out in the gym, before practice and will take about 16 minutes of your time. I will not need to meet with the team again after that 16 minutes is over.

FREEDOM TO PARTICIPATE OR NOT:

Your participation in this study is completely optional. You may decide to skip questions or stop participating at any time without explanation or punishment. Your decision will not affect your grades or relationship with your team, Akron Public Schools, or Bowling Green State University. I have permission from Akron Public Schools to do research at your school.

PROTECTING YOUR ANSWERS:

All answers collected in this study will be kept confidential and in a locked file cabinet in a locked office. Only the researchers will see the answers you provide and no name will be connected to what you fill out. Instead, you will have a special code. Your special code will be the first three letters of your favorite food and the day of the month you were born. You will be asked to put this code on all the questionnaires that you fill out.

RISKS:

This study's risks are no greater than what happens in everyday life. There is a risk that someone finds out who you are, but the researchers will do everything they can to make sure that does not happen.

CONTACT INFORMATION:

If you have questions about this study, you may contact BreAysia Moorer, at 330-510-9489 or bmoorer@bgsu.edu, or Dr. Tobar, at 419-372-6914 or dtobar@bgsu.edu. You may also contact the Chair of the Bowling Green State University Institutional Review Board, at 419-372-7716 or orc@bgsu.edu, if you have any questions or concerns about your rights as a research participant. Thank you for your time.

Agreement:

I have been informed of the purpose, procedures, risks, and benefits of this study. I have had the opportunity to have all my questions answered and I have been informed that my participation is completely optional. By checking the box below and putting my special code on the line below, I am agreeing to participate.

Yes, I agree to participate in this study.

For your special code, please write the first three letters of your favorite food and the day of the month you were born on the line below. For example, if my favorite food is waffles and my birthday is on June 13th, then I would write 'waf 13'. **SPECIAL CODE:** _____

Date: _____

Appendix B. Informed Parental Consent Form



BOWLING GREEN STATE UNIVERSITY
School of Human Movement, Sport, & Leisure Studies

PARENTAL CONSENT FORM

Key Information

This study is about goal setting, facing challenges, enjoyment, and behavior in basketball. Once athletes agree to participate and get permission from parents, they will fill out six questionnaires. This will take about 16 minutes of their time before practice and is completely optional. Their information will not be shared with anyone. Their participation will not only help coaches understand how to increase enjoyment, but also teach them about their motivational style in basketball. This study has very little risks, no greater than what happens in everyday life.

More Information

INTRODUCTION OF THE RESEARCHER:

My name is BreAysia Moorer. I am a graduate student in the School of Human Movement, Sport, and Leisure at Bowling Green State University. My advisor is Dr. David Tobar, an associate professor. Your child has been invited to participate in a study on goal setting, facing challenges, enjoyment, and behavior in basketball.

REASON FOR THE STUDY:

The reason for this study is to see how goals, facing challenges, enjoyment, and behavior in basketball affect each other in high school athletes.

WHAT WILL HAPPEN DURING THE STUDY:

If you give permission by (date TBD) AND your child agrees to participate, your child will fill out six questionnaires. These will be filled out in the gym, before practice, and will take about 16 minutes of their time. I will not need to meet with the team again after that 16 minutes is over. If you or your child do not give permission to be included, your child will wait outside of the gym until all questionnaires have been collected.

FREEDOM TO PARTICIPATE OR NOT:

Your child's participation in this study is completely optional. Your child may skip questions or stop participating at any time without explanation or punishment. Decisions will not affect grades or relationship with the team, Akron Public Schools, or Bowling Green State University. I have permission from Akron Public Schools to do research at your child's school.

PROTECTING YOUR CHILD'S ANSWERS:

All answers collected in this study will be kept confidential and in a locked file cabinet in a locked office. Only the researchers will see the answers athletes provide and no name will be connected to what they fill out. Instead, they will have a special code. Their special code will be the first three letters of their favorite food and the day of the month they were born. They will be asked to put this code on all the questionnaires that they fill out.

RISKS:

This study's risks are no greater than what happens in everyday life. There is a risk that someone finds out who the athletes are, but the researchers will do everything they can to make sure that does not happen.

CONTACT INFORMATION:

If you have questions about this study, you may contact BreAysia Moorer, at 330-510-9489 or bmoorer@bgsu.edu, or Dr. Tobar, at 419-372-6914 or dtobar@bgsu.edu. You may also contact the Chair of the Bowling Green State University Institutional Review Board, at 419-372-7716 or orc@bgsu.edu, if you have any questions or concerns about your child's rights as a research participant. Thank you for your time.

Agreement:

I have been informed of the purpose, procedures, risks, and benefits of this study. I have had the opportunity to have all my questions answered and I have been informed that my child's participation is completely voluntary. By printing and signing my name and my child's name below, I agree that my child can participate in this study.

Parent Name (PRINTED): _____

Parent Signature: _____

Child/Participant Name (PRINTED): _____

Date: _____

Appendix C. Demographic Information

DEMOGRAPHIC INFORMATION

For your special code, please write the first three letters of your favorite food and the day of the month you were born on the line below. For example, if my favorite food is waffles and my birthday is on June 13th, then I would write 'waf 13'. **SPECIAL CODE:** _____

Age: _____ years old

Gender (circle one): Male or Female

Race/Ethnicity: _____

Grade: _____

How many years have you been playing basketball? _____ years

How many years have you been playing on your current high school team? _____ years

Appendix D. 2 × 2 Achievement Goals Questionnaire for Sport

GOALS

For your special code, please write the first 3 letters of your favorite food and the day of the month you were born. For example, if my favorite food is waffles and my birthday is on June 13th, then I would write 'waf 13'. **SPECIAL CODE:** _____

Instructions: The following statements represent types of goals that you may or may not have when playing basketball. For each item, put a mark on the scale from 1 (not at all like me) to 7 (completely like me) to show your level of agreement with the statement. All of your responses will be kept confidential. There are no right or wrong responses, so please be open and honest.

Response Scale:							
1	2	3	4	5	6	7	
Not At All							Completely
Like Me							Like Me

- ___ 1. It is important to me to perform as well as I possibly can.
- ___ 2. I worry that I may not perform as well as I possibly can.
- ___ 3. My goal is to do better than most other performers.
- ___ 4. It is important for me to avoid being one of the worst performers in the group.
- ___ 5. It is important for me to master all aspects of my performance.
- ___ 6. I'm often concerned that I may not perform as well as I can perform.
- ___ 7. It is important for me to perform better than others.
- ___ 8. My goal is to avoid performing worse than everyone else.
- ___ 9. I want to perform as well as it is possible for me to perform.
- ___ 10. Sometimes I'm afraid that I may not perform as well as I'd like.
- ___ 11. It is important to me to do well compared to others.
- ___ 12. I just want to avoid performing worse than others.

Appendix E. Sport Enjoyment Scale

ENJOYMENT

For your special code, please write the first three letters of your favorite food and the day of the month you were born. For example, if my favorite food is waffles and my birthday is on June 13th, then I would write 'waf 13'. **SPECIAL CODE:** _____

Instructions: The following questions represent feelings that you may or may not have when playing basketball. Please read each question. Then, circle a number from 1 (none) to 5 (a lot) to show *how you USUALLY feel when playing basketball*. All of your responses will be kept confidential. There are no right or wrong responses, so please be open and honest.

	None	A Little	Somewhat	Pretty Much	A Lot
1. Do you get into doing the skills?	1	2	3	4	5
2. Do you like playing?	1	2	3	4	5
3. Do you enjoy playing?	1	2	3	4	5
4. Do you have fun playing?	1	2	3	4	5
5. Are you happy playing?	1	2	3	4	5

Appendix F. Sport Anxiety Scale-2

REACTIONS TO PLAYING

For your special code, please write the first three letters of your favorite food and the day of the month you were born. For example, if my favorite food is waffles and my birthday is on June 13th, then I would write 'waf 13'. **SPECIAL CODE:** _____

Instructions: The following statements represent feelings that you may or may not have when you play basketball. Please read each statement. Then, circle a number from 1 (not at all) to 4 (very much) to show ***how you USUALLY feel***. All of your responses will be kept confidential. There are no right or wrong responses, so please be open and honest.

<u>Before or while I compete in sports:</u>	Not At All	A Little Bit	Pretty Much	Very Much
1. It is hard to concentrate on the game.	1	2	3	4
2. My body feels tense.	1	2	3	4
3. I worry that I will not play well.	1	2	3	4
4. It is hard for me to focus on what I am supposed to do.	1	2	3	4
5. I worry that I will let others down.	1	2	3	4
<u>Before or while I compete in sports:</u>	Not At All	A Little Bit	Pretty Much	Very Much
6. I feel tense in my stomach.	1	2	3	4
7. I lose focus on the game.	1	2	3	4
8. I worry that I will not play my best.	1	2	3	4
9. I worry that I will play badly.	1	2	3	4
10. My muscles feel shaky.	1	2	3	4
<u>Before or while I compete in sports:</u>	Not At All	A Little Bit	Pretty Much	Very Much
11. I worry that I will mess up during the game.	1	2	3	4
12. My stomach feels upset.	1	2	3	4
13. I cannot think clearly during the game.	1	2	3	4
14. My muscles feel tight because I am nervous.	1	2	3	4
15. I have a hard time focusing on what my coach tells me to do.	1	2	3	4

Appendix G. Performance Failure Appraisal Inventory – Short

FACING CHALLENGES

For your special code, please write the first three letters of your favorite food and the day of the month you were born. For example, if my favorite food is waffles and my birthday is on June 13th, then I would write 'waf 13'. **SPECIAL CODE:** _____

Instructions: The following statements represent feelings that you may or may not have when you are faced with a challenge. For each item, put a mark on the scale from -2 (do not believe at all) to +2 (believe 100% of the time) to show your level of belief in the statement. All of your responses will be kept confidential. There are no right or wrong responses, so please be open and honest.

Response Scale:				
-2	-1	0	+1	+2
Do Not Believe At All		Believe 50% Of The Time		Believe 100% Of The Time

- ___ 1. When I am failing, I am afraid that I might not have enough talent.
- ___ 2. When I am failing, it upsets my "plan" for the future.
- ___ 3. When I am not succeeding, people are less interested in me.
- ___ 4. When I am failing, important others are disappointed.
- ___ 5. When I am failing, I worry about what others think about me.

Appendix H. Self-Handicapping Scale

GENERAL BEHAVIOR

For your special code, please write the first three letters of your favorite food and the day of the month you were born. For example, if my favorite food is waffles and my birthday is on June 13th, then I would write 'waf 13'. **SPECIAL CODE:** _____

Instructions: The statements below represent feelings/actions that may or may not describe you. For each item, put a mark on the scale from 0 (disagree very much) to 5 (agree very much) to show your level of agreement with the statement. All of your responses will be kept confidential. There are no right or wrong responses, so please be open and honest.

- 0 = disagree very much
- 1 = disagree pretty much
- 2 = disagree a little
- 3 = agree a little
- 4 = agree pretty much
- 5 = agree very much

- ___ 1. When I do something wrong, my first impulse is to blame circumstances.
- ___ 2. I tend to put things off until the last moment.
- ___ 3. I suppose I feel "under the weather" more often than most people.
- ___ 4. I always try to do my best, no matter what.
- ___ 5. I am easily distracted by noises or my own creative thoughts when I try to read.
- ___ 6. I try not to get too intensely involved in competitive activities so it won't hurt too much if I lose or do poorly.
- ___ 7. I would do a lot better if I tried harder.
- ___ 8. Someday I might "get it all together."
- ___ 9. I sometimes enjoy being mildly ill for a day or two because it takes off the pressure.
- ___ 10. I would do much better if I did not let my emotions get in the way.
- ___ 11. I admit that I am tempted to rationalize when I don't live up to other's expectations.
- ___ 12. I often think I have more than my share of bad luck in sports, card games, and other measures of talent.
- ___ 13. I overindulge in food and drink more often than I should.
- ___ 14. Sometimes I get so depressed that even easy tasks become difficult.

Appendix I. Correlation Matrix

Correlation Matrix for Five Female Basketball Players

	Age	Gr	YS	YCT	MAp	MAv	PAP	PAv	ENJ	SAS	FAI	SHS ⁺
Age	1	-	-	-	-	-	-	-	-	-	-	-
Gr	1***	1	-	-	-	-	-	-	-	-	-	-
YS	.557	.557	1	-	-	-	-	-	-	-	-	-
YCT	.943**	.943**	.306	1	-	-	-	-	-	-	-	-
MAp	-.967***	-.967***	-.461	-.976***	1	-	-	-	-	-	-	-
MAv	-.695	-.695	-.778	-.631	.692	1	-	-	-	-	-	-
PAP	-.541	-.541	-.709	-.447	.458	.906**	1	-	-	-	-	-
PAv	-.162	-.162	-.456	-.068	.026	.597	.877*	1	-	-	-	-
ENJ	-.134	-.134	-0.98	-.196	.075	.506	.760	.887**	1	-	-	-
SAS	.680	.680	.130	.630	-.667	.003	.222	.522	.543	1	-	-
FAI	.595	.595	.021	.517	-.473	.112	.092	.179	.205	.837*	1	-
SHS⁺	.538	.538	-.204	.584	-.440	.021	-.107	-.113	-.271	.531	.843*	1

⁺Statistics based on the modified scale with three items deleted

*denotes $p < .10$

**denotes $p < .05$

***denotes $p < .01$

Gr = Grade; YS = Years in sport; YCT = Years on current team; MAp = Mastery approach orientation; MAv = Mastery avoidance orientation; PAP = Performance approach orientation; PAv = Performance avoidance orientation; ENJ = Enjoyment; SAS = Sport Anxiety Scale-2; FAI = Performance Failure Appraisal Inventory – Short; SHS = Self-Handicapping Scale