2001

Differences in Motivation Between Division I Collegiate Female Basketball Players and Swimmers

Meghan McGovern
Eastern Illinois University

THESIS/FIELD EXPERIENCE PAPER
REPRODUCTION CERTIFICATE

TO: Graduate Degree Candidates (who have written formal theses)

SUBJECT: Permission to Reproduce Theses

The University Library is receiving a number of request from other institutions asking permission to reproduce dissertations for inclusion in their library holdings. Although no copyright laws are involved, we feel that professional courtesy demands that permission be obtained from the author before we allow these to be copied.

PLEASE SIGN ONE OF THE FOLLOWING STATEMENTS:

Booth Library of Eastern Illinois University has my permission to lend my thesis to a reputable college or university for the purpose of copying it for inclusion in that institution's library or research holdings.

[redacted]

Author's Signature

7/16/2001

Date

I respectfully request Booth Library of Eastern Illinois University **NOT** allow my thesis to be reproduced because:

_____

_____

_____

_____

Author's Signature

_____

Date

Differences in Motivation Between Division I

Collegiate Female Basketball Players and Swimmers
(TITLE)

BY

Meghan McGovern
1978-

THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF

Master of Science

IN THE GRADUATE SCHOOL, EASTERN ILLINOIS UNIVERSITY
CHARLESTON, ILLINOIS

2001
YEAR

I HEREBY RECOMMEND THIS THESIS BE ACCEPTED AS FULFILLING
THIS PART OF THE GRADUATE DEGREE CITED ABOVE

8-02-01
DATE

[redacted]
ADVISER

8/2/01
DATE

[redacted]
DEPARTMENT HEAD

ABSTRACT

Previous research has shown that motivation to participate in athletics is influenced by a variety of factors. A great number of studies have identified several of these factors including age, gender and scholarship status (Amorose and Horn, 2000). However very little research has been conducted regarding how the type of sport may influence motivation.

The purpose of this study was to determine if differences existed in the types of motivation exhibited by team sport athletes and individual sport athletes when assessed using the Sport Motivation Scale (SMS) (Pelletier et al, 1995). It was hypothesized that team sport athletes would display higher levels of Extrinsic Motivation than individual sport athletes.

A demographic questionnaire and the Sport Motivation Scale was sent to all 11 women's basketball teams in the Ohio Valley Conference and the nine women's swim teams in the Midwest Conference. Ten of the 11 basketball teams (n=71) and three of the nine swim teams (n=36) returned the surveys. The SMS assessed the type of motivation experienced by each athlete based on the self-determination continuum (Deci and Ryan, 1985; 1992).

A MANOVA was performed and examination of the results revealed a significant difference between the swimmers and the basketball players in the category Identified Regulation ($p=.005$) with the swimmers displaying greater levels. No significant difference was found between the two groups for any of the other six categories of motivation. Both the basketball players and the swimmers displayed higher levels of Intrinsic Motivation than Extrinsic Motivation. This did not support the hypothesis of the

study. It was concluded that the only significant difference in motivation between swimmers and basketball players occurred on the extrinsic motivation – Introjected regulation category. All six other categories showed no significant difference.

Acknowledgements

Thank you to Dr. Brian Pritschet for his guidance throughout the completion of this thesis. Also, thank you to Dr. William Russell and Dr. Phyllis Croisant for their assistance during this research.

Table of Contents

List of Figures

CHAPTER I

INTRODUCTION

Background

Motivation to participate in competitive sport is a very complex and frequently researched topic. It has been found through previous research that motivation is a key factor in athletic performance and outcome (Vallerand, Deci & Ryan, 1987). While researchers have identified a variety of variables that influence motivation, not all variables can be accounted for in every study. A number of studies have been done isolating many of these variables. Some of the factors that have been shown to influence the motivation of collegiate athletes are scholarship status, gender, year in school, status on the team (starter, captain, benched athlete, etc.), orientation of the athlete (task, ego, etc.) (Amorose & Horn, 2000). The type of sport participated in has also been evaluated as a factor influencing motivation (Kamal, Alharoun, Metuzals & Parsons, 1985).

Several major theories regarding motivation have been developed, and all of them can be applied to athletes. The first of these motivational theories is the self-determination theory (Deci & Ryan, 1985, 1991). This theory proposes that there are three primary needs an individual must fulfill in order to achieve their goals: autonomy, competence and relatedness (Deci, 1992; Deci & Ryan, 1991; Ryan, 1995). Autonomy is defined as a desire to be self-initiating in the regulation of one's activities (Vallerand & Losier, 1999). Competence is the desire of an individual to interact effectively with their environment (Vallerand & Losier, 1999). Relatedness is a desire to feel connected with

others such as coaches and teammates (Vallerand & Losier, 1999). According to Deci (1992), these needs are what compel a person to set the goals that they do for themselves.

If an athlete feels he or she is in control of their activities, the individual will be more likely to continue participation. However if an athlete feels another person, such as a parent or coach is directing his or her participation, he or she will be at greater risk for dropout (Deci, 1992). The same principle holds true for competence and relatedness. If an athlete experiences these he or she is more likely to continue participation. However if the individual does not feel competent, or feels unable to relate to teammates and coaches, he or she is more likely to discontinue participation (Deci & Ryan, 1991).

A second major motivation theory is the Hierarchical Model developed by Abraham Maslow (Maslow, 1970). This model proposes that motivation is based on a continuum of needs organized in a pyramid with the most basic physiological needs, such as hunger and thirst, composing the base. As the pyramid narrows, the needs become more complex and difficult to attain, such as love and competence. According to Maslow's theory, in order for the higher level needs to be fulfilled the lower level needs must first be satisfied (Maslow, 1970).

A third theory of motivation is Harter's Competence Motivation Theory (Harter, 1978; 1981). This theory states that perceived competence at a skill will influence an individual's desire to participate. If an athlete perceives that he or she is highly competent in their sport, the athlete will likely continue in the sport. Conversely, if an athlete perceives that he or she is not competent in their sport, the athlete will be more likely to withdraw from sport (Harter, 1978; 1981).

Attribution Theory is a more cognitive approach to motivation (Heider, 1944; 1958). This theory proposes that every person seeks to explain his or her actions in terms of their causes. The attributions that an athlete selects can reveal a lot about the motivational structures possessed (Weiener, 1985 & Roberts, 1982).

If an athlete attributes failure to a lack of ability, they will see no way to improve their current situation and are more likely to dropout. However, if an athlete attributes failure to bad luck or a lack of effort, they won't feel as hopeless and may be more motivated to continue participation (Weiner, 1985).

While all of these theories can be applied to sport, one theory has been developed to apply specifically to sport. Vallerand (1997) combined the self-determination theory and the Hierarchical Model to develop a model applicable singularly to sport. This theory considers social factors, psychological mediators, motivation and consequences related to sport performance. While Vallerand's theory does evaluate a variety of factors that influence motivation, it does not include an assessment of the type of sport the athlete participates in. Although this could be included in the social factors category, the issue of type of sport is not directly addressed.

Deci and Ryan (1985; 1992) broke motivation into three basic types when developing the self-determination theory: Intrinsic Motivation (IM), Extrinsic Motivation (EM) and Amotivation. Intrinsic Motivation is then divided into three subtypes: IM to know things, IM to accomplish things and IM to experience stimulation (Deci & Ryan; 1985; 1992). Extrinsic Motivation is also divided into three categories of regulation: EM – Identified Regulation, EM – Introjected Regulation and EM – External Regulation (Deci & Ryan, 1985; 1992).

The definition of each subtype of Intrinsic Motivation serves to further clarify the definition of IM. Intrinsic Motivation to know is defined as participating in a sport for the pleasure of learning something new or learning more about the activity (Vallerand and Losier, 1999). Intrinsic Motivation to accomplish things is defined as participating in a sport for the pleasure of out-doing oneself and the process of attempting to accomplish new objectives (Vallerand & Losier, 1999). Intrinsic Motivation to experience stimulation is defined as engaging in sport for the pleasure derived from the sensations of participating in the sport (Vallerand & Losier, 1999).

As with IM, the subtypes of Extrinsic Motivation provide further clarification regarding EM. Identified Regulation is demonstrated when an athlete chooses to engage in a behavior that is not interesting to them but is important because it will help him or her reach a personal goal (Deci & Ryan, 1985). Introjected Regulation is defined as an incomplete internalization of a regulation that was previously external but does not need to be present to invoke the response (Deci & Ryan, 1985). External Regulation is the final type of Extrinsic Motivation. External Regulation is the least self-determined type of EM and is displayed when an athlete behaved in a particular way only to receive a reward or avoid punishment from others (Deci & Ryan, 1985).

Purpose

The purpose of this study was to determine if differences existed in the types of motivation exhibited by collegiate female basketball players and swimmers when assessed using the Sport Motivation Scale (Pelletier et al., 1995).

Hypothesis

Carron (1980) defined individual sport athletes as being more concerned with their own achievements, with motivation being dependent upon enjoyment of the sport and success. Straub (1978) defined the team sport athlete as being extroverted and less concerned with his or her own performance than the performance of the team as a whole. Therefore, it was hypothesized that female basketball players, team sport athletes, would demonstrate higher levels of Extrinsic Motivation than female swimmers, individual sport athletes.

Limitations and Assumptions

Inherent in every survey study there are several limitations. Questions left unanswered or a subject giving an incorrect or untrue answer may cause a misinterpretation of data. The format of this study also presented several limitations. The surveys were mailed to the coaches of the teams, and administered by a member of the team staff. This may have caused the athletes to answer falsely due to fear of repercussions from the coaches. Also, it was difficult for the researcher to be sure the coaches followed the outlined instructions for administration of the surveys.

Significance

Extensive research has been conducted regarding motivation. However, very little research specifically addressing the effect that team or individual sport participation has on motivation has been performed. This study will examine the differences in motivation exhibited by team or individual sport athletes and proposed possible explanations.

Definitions

There are several terms and phrases used regarding the topic of motivation that must be defined in order to clarify this study. For purposes of this study, the following definitions will apply.

Amotivation: individuals do not perceive any contingencies between their actions and the outcomes of their actions; often accompanied by feelings of incompetence and lack of control; no longer can identify any good reason why they continue to train (Deci & Ryan, 1985)

Autonomy: a desire to be self-initiating in the regulation of one's activities (Vallerand & Losier, 1999)

Competence: the desire of individuals to interact effectively with their environment (Vallerand & Losier, 1999)

External Regulation: behavior that is controlled by external sources, such as material rewards or constraints imposed by others (Deci & Ryan, 1985)

Hierarchical Model: theory that motivation is based on a continuum of needs organized in a pyramid from low to high level needs; lower level needs, such as hunger and thirst,

must be satisfied first before higher level needs, such as love and competence, can be satisfied (Cox, 1998)

Identification: an individual comes to value and judge the behavior as important and performs it out of choice; the behavior is still performed for extrinsic reasons, but it is internally regulated and self-determined (Pelletier et al, 1995)

Intrinsic Motivation to Experience Stimulation: engagement in an activity to experience stimulating sensations such as sensory pleasure, fun and excitement derived from participation in the activity (Pelletier et al, 1995)

Intrinsic Motivation to Know: performing an activity for the pleasure and satisfaction that one experiences while learning, exploring or trying to understand something new (Pelletier et al, 1995)

Intrinsic Motivation Toward Accomplishments: individuals interact with the environment in order to feel competent and to create unique accomplishments; engaging in an activity for the pleasure and satisfaction experienced when one attempts to accomplish or create something (Pelletier et al, 1995)

Introjection: a formerly external source of motivation has been internalized so its actual presence is no longer needed to initiate the behavior; the behaviors become reinforced by internal pressures such as guilt and anxiety (Pelletier et al, 1995)

Relatedness: a desire to feel connected with significant others, such as coaches and teammates (Vallerand and Losier, 1999)

Self-Determination Theory: an individual's goals are fueled and determined by psychological needs which have been primarily identified by Deci and Ryan as autonomy, competence and relatedness (1991)

CHAPTER II

REVIEW OF RELATED LITERATURE

The review of literature has been divided into seven sections; information regarding theories of motivation, types of motivation, factors influencing motivation, the Sport Motivation Scale (SMS), motivation in youth athletics and profiles of athletes. Motivation is a key factor in many of sports most interesting and complex problems (Duda, 1989; Deci & Ryan, 1987). Very little research has been conducted in an attempt to determine whether specific types of motivation would be conducive to better sports performance (Kamal, Alharoun, Metuzals, & Parsons, 1985). When discussing the motivation of competitive athletes, a variety of factors must be carefully considered.

Theories of Motivation

Several theories have been developed regarding motivation. The Self-actualization Theory, the Self-determination Theory and Attribution Theory are a few general theories of motivation. Vallerand (1999) developed a model integrating the Self-actualization Theory and the Self-determination Theory that is applicable singularly to athletes.

The Self-actualization Theory was developed was developed by Abraham Maslow (Maslow, 1954). This theory proposes that motivation is based on a continuum of needs. These needs are organized in a pyramidal shape progressing from low level to

high level needs as the pyramid narrows (Maslow, 1954). Lower levels needs consist of physiological needs, such as food and drink. Higher levels needs are more spiritual and emotional needs, such as feeling competent or loved. Lower level needs must be satisfied before a person can begin to satisfy the higher level needs (Maslow, 1954). Application of these principles creates a model similar to Harter's Competence Motivation Theory, which is discussed later.

While the Self-actualization Theory was not designed to be applied to sport, the principles of the theory could be. Lower level physiological needs must be met in order for a person to function in day-to-day life. While these needs also must be met to be successful in sport, an athlete cannot succeed if only these needs are met. In order for an athlete to be successful, he or she must feel competent and able to be successful, and this would indicate that higher level needs must be met in order to succeed in athletics (Maslow, 1954).

The Self-determination Theory proposes that goals are fueled by the psychological needs of the individual (Deci & Ryan, 1985, 1991).

> According to Self-determination Theory, individuals have a need to feel self-determined and competent when dealing with the environment. Self-determination is defined as an autonomous and flexible capacity to choose, among several courses of action, the action that will bring desired consequences (Deci & Ryan, 1985).

The Self-determination Theory has identified three primary needs that must be fulfilled before an individual can feel self-determined: autonomy, competence, and relatedness (Deci, 1992; Deci & Ryan, 1991; Ryan, 1995). Autonomy is the desire to be

self-initiating in the regulation of one's actions (Deci & Ryan, 1985, 1991). Competence is defined as an individuals desire to interact effectively with their environment (Deci & Ryan, 1985, 1991). Relatedness is the desire to feel connected with significant others in an individual's life (Deci & Ryan, 1985, 1991).

According to the Self-determination Theory, positive or negative consequences will result for an athlete, dependent upon the type of motivation the athlete experiences. This theory proposes that negative consequences are expected to result from non-self-determined motives, whereas positive consequences should result from self-determined behavior (Vallerand & Losier, 1999).

Harter (1978; 1981) developed the competence motivation theory. This theory proposed that the more competent an individual felt at a skill, the more likely he or she was to continue participation in that skill. In addition, the opposite would be true, meaning that the less competent an individual felt at a skill the more likely he or she would be to withdraw participation from that skill (Harter, 1978, 1981).

The Competence Motivation Theory is a state specific theory, not a global theory, meaning that it is very situation specific (Harter, 1978, 1981). Therefore, an athlete may exhibit variations in motivation across the competence domains. An athlete who feels very physically competent may also feel socially inadequate and that he or she does not fit in with their peers. This lack of perceived competence in one domain may overshadow the competence in the physical domain and cause sport withdrawal (Harter, 1978; 1981). However, withdrawal from one sport does not mean the individual will never participate in sport again, which is further support for the lack of global application of this theory (Harter, 1978; 1981).

Self-efficacy is another major concept involved in the Competence Motivation Theory. Self-efficacy is associated with an athlete's belief that he or she is capable of success and competent at a task (Harter, 1978; 1981). Athletes who exhibit higher levels of self-efficacy will be more likely to approach achievement situations with enthusiasm and self-confidence (Harter, 1978; 1981).

Bandura (1986) proposed that an individual must possess self-efficacy to feel competent, and the higher the self-efficacy the greater the accomplishments he/she will be capable of obtaining. In addition, less emotional arousal will be involved in difficult competitive situations if an athlete possesses high levels of self-efficacy (Bandura, 1986). Athletes who have high levels of self-efficacy will chose tasks that are challenging, result in positive emotions, and will experience low levels of anxiety when performing the tasks (Harter, 1978; 1982).

Vallerand (1999) proposed the third theory of motivation. This theory combines the Hierarchical Model with the Self-determination Theory. Vallerand's model proposes, "social factors (i.e. success and failure) represent potent determinants of sport motivation" (Vallerand & Losier, 1999). The variables involved are also mediated by the athletes' perceptions of competence, autonomy, and relatedness (Vallerand & Losier, 1999). The theory presents a continuum of factors beginning with social factors, then psychological mediators, followed by types of motivation, and concluding with consequences (Deci & Ryan, 1985, 1991; Vallerand, 1999).

Types of Motivation

According to self-determination theory (Deci & Ryan, 1985; 1992), motivation has been broken into three basic types: Intrinsic Motivation (IM), Extrinsic Motivation (EM), and Amotivation. Intrinsic Motivation is further divided into three subtypes: IM to know things, IM to accomplish things, and IM to experience stimulation (Vallerand & Losier, 1999). Extrinsic Motivation is also subdivided into three categories of regulation based on the self-determination theory: identified regulation, introjected regulation, and external regulation (Deci & Ryan, 1985).

Intrinsic Motivation in general has been defined in several ways ranging from practical to scientific. A practical definition of intrinsic motivation would suggest that an athlete participates in a sport without receiving or expecting any apparent reward (Mawdsley, 1988). The primary weakness of the practical definition is that it does not describe why the behavior occurs; it only defines intrinsic motivation (Mawdsley, 1988). A more scientific approach to the definition of IM indicates that behavior that is intrinsically motivated occurs as the result of an innate need for the individual to feel competent and self-determining in relation to the environment. This definition does describe the reason for intrinsically motivated behavior, but does not focus as much on describing the behavior (Deci, 1975).

The definition of each subtype of intrinsic motivation serves to further clarify the definition of IM. Intrinsic motivation to know is defined as "engaging in a sport for the pleasure of learning something new, or the pleasure of learning more about the activity" (Vallerand & Losier, 1999). This type of motivation would be evidenced by the wide

receiver in football who answers the question "why do you participate in your sport?," with "I play for the pleasure I get from learning new moves" (Vallerand & Losier, 1999). Intrinsic Motivation to accomplish things is defined as " practicing a sport for the pleasure received from out-doing oneself, and the process of trying to reach new personal objectives" (Vallerand & Losier, 1999). This type of motivation is shown by the swimmer who answers "why do you participate in sport?," with "for the pleasure and satisfaction I get from mastering my starts and flip turns" (Vallerand & Losier, 1999).

The third and final type of intrinsic motivation is IM to experience stimulation. This type of IM is defined as " engaging in sport for the pleasure derived from the activity itself, such as the sensation of speed that is inherent in many sports" (Vallerand & Losier, 1999). This type of motivation is demonstrated by the linebacker in football who responds to the question 'why do you participate in sport?," with the answer "I practice and play so I can feel the rush I get on game day when I sack the other team's quarterback."

As with intrinsic motivation, the subtypes of extrinsic motivation provide further clarification regarding the definition of extrinsic motivation. Identified Regulation is seen when an athlete "choicefully decides to engage in behaviors that are not interesting to them per se, but nevertheless important, because they help him or her reach a personal valued goal" (Deci & Ryan, 1985). This type of motivation is seen in the athlete who chooses to lift weights, even though he/she dislikes it, because it is necessary in order to become stronger and more successful at sport. This is viewed as the most self-determined form of extrinsic motivation (Deci & Ryan, 1985).

Introjected Regulation is the second type of extrinsic motivation. This type of EM is defined as an incomplete internalization of a regulation that was previously external, but no longer needs to be present to invoke the desired response (Deci & Ryan, 1985). This type of motivation is seen in sport when an athlete participates in their sport because they feel pressure to do so, or they feel they should. Often this type of regulation is a result of previous constant pressure to participate from a parent, friend or coach. However, when introjected regulation is present, the pressure becomes internal and the outside figure no longer needs to apply that pressure (Deci & Ryan, 1985).

External Regulation is the third and final type of extrinsic motivation experienced by athletes. External Regulation is the least self-determined form of extrinsic motivation. This type of motivation is experienced when a person or athlete is behaving in a particular way only to receive a reward, or to avoid punishment from others. This type of motivation is often seen in environments that place too much emphasis on winning and not enough emphasis on task mastery. This type of motivation may also frequently be seen in children who continue participation in sport out of fear of what their parents will say or do if they choose to quit (Deci & Ryan, 1985).

Amotivation is the third and final primary category of motivation. An amotivated behavior is one that is neither intrinsically nor extrinsically motivated. In fact, the athlete will most likely not be able to explain why they perform a particular behavior. This athlete will see very little connection between their actions and environmental responses; they may actually feel that what they do causes no response at all from their surroundings Deci & Ryan, 1985). An athlete experiencing an amotivated state will see no sense of purpose for their participation in sport; he/she will not be able to explain continued

participation in sport. These athletes will have no expectations regarding their performance, and they will believe that there is no possibility that what they do could actually influence the outcome of the event (Deci & Ryan, 1985). An amotivated athlete may often be heard making statements such as "I just don't know why I do this anymore,' or "I just can't be successful at this anymore." An athlete experiencing Amotivation may also entertain thoughts of quitting, but he/she most likely will not even have the motivation to end their participation (Deci & Ryan, 1985).

Factors Influencing Motivation

Alderman and Wood (1976) identified seven major motives for participation in sport, all of which have a direct impact on an athlete's motivation. The seven factors are aggression, affiliation, excellence, independence, power, stress, and success. Aggression is defined as an opportunity for emotional outlet to subdue, intimidate, or dominate others. Affiliation is an opportunity to be with friends, and to make new friends. Excellence is succeeding or winning, and independence is the opportunity to do things on one's own. Power is the ability to control and influence others, and stress is a when an athlete is given the chance for excitement, tension, pressure, and pure action that sport can provide. Success can be defined as improvement on a previous performance or as the ability of the athlete to obtain extrinsic rewards of status, prestige, recognition, and social approval (Amorose & Horn, 2000).

Rewards and extrinsic incentives are also a major factor influencing motivation. The impact of a reward is determined by how it is perceived by the athlete. If a reward is

given with the premise that it is positive feedback for a successful performance, the rewards will very likely increase perceived competence and IM (Amorose & Horn, 2000). However, if the reward is perceived by the athlete as a controller of the behavior, self-determination will be reduced and the reward will begin to dictate the behavior. In this situation, IM will be severely undermined (Amorose & Horn, 2000). Weinberg (1984) states that rewards may have significant positive impact on Intrinsic Motivation, especially if initial IM was lacking. Mawdsley (1988) believes that "extrinsic motivation abounds in athletics and the rewards are a very powerful motive for participation.

Coach behaviors and athlete interaction also impact levels of motivation. An environment that encourages and supports a transfer of responsibility for behavior onto the athletes themselves will result in increased IM (Deci, Nezlek, & Sheinman 1981; Deci, Schwartz, Sheinman, & Ryan, 1981). Conversely, a controlling environment that does not allow individuals to behave autonomously will undermine self-determination and decrease IM (Deci, Nezlek, & Sheinman, 1981; Deci, Schwartz, Sheinman, & Ryan, 1981).

Athletes who believe that their coach provides positive and corrective feedback will have increased levels of perceived competence and IM (Ryan et al., 1985). By providing informational feedback, the coach increases the athletes' belief that they control their own future (Horn, 1987; 1992). Alternatively, coaches who provide failure feedback will generate feelings of incompetence within the athletes, and this will undermine the athlete's IM (Vallerand & Losier, 1999).

Smith and Smoll (1977) conducted a study evaluating coaching behaviors and the impact they have on athletes. The results of this study lead to the development of the

Coaching Behavior Assessment Scale (CBAS) (Smith and Smoll, 1977). The CBAS was used in a study conducted by Solomon et al (1996) that recorded college basketball coaching behaviors and examined their impact on the athletes' behaviors. The results of this study indicated that head coaches provided more feedback to high expectancy players, and the athletes accurately perceived this behavior. Conversely less feedback was given to low expectancy players and this was also perceived accurately (Solomon et al, 1996).

Martinek, Crow and Rejeski (1982) found that accurate perception of coaching behaviors over time could lead to internalization of the coaches' attitudes towards the athlete. This may cause the athlete to conform to the coaches' expectations of them. This self-fulfilling prophecy can directly impact an athlete's motivation. If a coach views an athlete as low expectancy and does not provide them with any positive feedback, over time the athlete will begin to view themselves as low expectancy and perform accordingly (Martinek, Crow & Rejeski, 1996).

The gender of the athlete can also have a direct influence on what type of motivation the athlete experiences. Male athletes have been shown to be highly victory and outcome oriented, while female athletes have demonstrated more task orientation and less of a focus on winning (Loy, Birrell, & Rose, 1976). In addition, female athletes are more intrinsically motivated, often providing self-encouragement and motivation. Male athletes, however, demonstrate high levels of extrinsic motivation, seeking reassurance and praise from others (Loy, Birrell, & Rose, 1976).

Chantal, Guay, Dobreva-Martinova, and Vallerand (1996) conducted a study involving Bulgarian athletes that explored a connection between motivation and elite

performance. Ninety-eight top Bulgarian athletes were administered the Sport Motivation Scale over a period of two years. The results of this study showed a considerable connection between successful performance and high levels of non-self-determined Extrinsic Motivation. These results emphasize the significance of motivation when evaluating successful performance (Chantal, Guay, Dobreva-Martinova, & Vallerand, 1996).

Another important influence motivation has is the impact it places on the desire to participate. High levels of Intrinsic Motivation have been shown to increase positive affect, and this will lead to an increased desire to participate (Fredercik, Morrison, & Manning, 1996). Positive affect can also lead to higher levels of perceived competence and increased satisfaction with sport activity (Fredercik, Morrison, & Manning, 1996).

Sport Motivation Scale

The Sport Motivation Scale (SMS) is a questionnaire based on the Self-determination Theory (Deci & Ryan, 1985). The SMS was originally written in French, Echelle de Motivation vis-à-vis les Sports, and later translated into English (Pelletier et al., 1995). Following the translation, Pelletier et al. (1995) subsequently validated the English version of the questionnaire.

The Sport Motivation Scale consists of seven subscales, each of which evaluates the presence of an aspect of the three types of motivation. Intrinsic Motivation (IM) is divided into three subtypes: IM to know more, IM to accomplish things, and IM to experience stimulation (Briere, Vallerand, Blais, & Pelletier, 1995). Extrinsic Motivation

(EM) is also broken down into three categories, which represent different types of regulation: Identified regulation, Introjected regulation and External regulation. Amotivation, or the lack of motivation, is also assessed on the scale (Briere, Vallerand, Blais, & Pelletier, 1995).

Further evaluation of the SMS revealed "satisfactory internal consistency as well as high indices of temporal stability" (Briere, Vallerand, Blais, & Pelletier, 1995). The seven-factor structure of the Sport Motivation Scale was confirmed through internal confirmatory factor analysis (Briere, Vallerand, Blais & Pelletier, 1995). These findings provided support for the validity and reliability of the SMS (Briere, Vallerand, Blais, & Pelletier, 1995).

The Sport Motivation Scale can also be administered as a self-determination index, and this is done by combining all the subscale scores. Each subscale is given a weighted value depending upon where it falls along the self-determination continuum. The total score for each subscale is then multiplied by the weight applied to that subscale, and all the resulting values are subsequently summed. The resulting value is the individual's self-determination score. Therefore, the higher the score the more self determined the person is, and this indicates that he/she participates in sport out of choice and for pleasure. This scale has been shown to be a valid and reliable measure of self-determination (Blais et al., 1990; Fortier, Vallerand, & Guay, 1995; Guay & Vallerand, 1997; Vallerand & Bissonnette, 1992; Vallerand et al., 1997).

Motivation in Youth Athletics

The types of motivation experienced by young athletes are very similar to those experienced by collegiate athletes. However, young athletes give different reasons for participation in sport, and their responses to rewards and incentives are somewhat different (Watson, 1984).

Watson (1984) conducted a study of children involved in youth competitive swimming programs. This study evaluated what factors the children considered most important and influential concerning their participation in swimming. The children identified three factors as being the most attractive components of competitive swimming. These factors were friendship formation, task mastery, and experiencing the intrinsic rewards of the activity. Upon evaluation, these components appear to be "closely approximated to the characteristics of intrinsically motivated behavior" (Watson, 1984).

A study of ice hockey players ranging in age from 8-16 years old found a variety of participation motives (Fry, McClements, & Sefton, 1981). The main reason the children studied cited for their participation in sport was to have fun. Eighty-seven percent of the children surveyed stated that becoming a good player was their second most important reason for participating in sport. The athletes in the study maintained that winning a trophy and getting exercise were the two relatively unimportant reasons for participating in sport (Fry, McClements, & Sefton, 1981).

Gould, Feltz, Horn, and Weiss (1982) conducted a study of former swimmers ages 10-18 years old to evaluate reasons for discontinued sport participation. Forty-two

percent of the former swimmers studied cited other things to do as being their primary reason for dropping out of swimming. Lack of enjoyment of the sport was the second highest ranked reason given for dropout, followed closely by lack of perceived competence at swimming and desire to play another sport (Gould, Feltz, Horn, & Weiss, 1982). Lack of perceived competence and desire to play another sport as reasons for drop out both correspond with Harter's Competence Motivation Theory, and give credence to the state rather that global application of the theory (Harter, 1978, 1981).

According to Vallerand, Deci, and Ryan (1987), it is extremely important that parents and coaches of young athletes nurture the intrinsic motivation that children express. Many coaches and parents emphasize a winning at all costs attitude, and this poses a direct threat to IM. If a child feels overly pressured to win, he/she may begin to lose the enjoyment once experienced when participating in sport. As the enjoyment decreased chances for long-term involvement also decreased. Another possible consequence is that the child may discontinue their participation in sport all together (Vallerand, Deci, & Ryan, 1987).

Another factor involved in the motivation of youth athletes is the impact external rewards and incentives may have (Kamal, 1989). During his 1989 study with youth swimmers, Kamal found significant improvement occurred extrinsic rewards were implemented with youth swimmers. Competition between swimmers produced the greatest improvement in performance. However, this influence appeared to diminish with age. As the swimmers approached adolescence, the IM obtained from success had more impact than the extrinsic rewards provided by competition. It was postulated that this was a result of increasing maturity levels within the swimmers (Kamal, 1989).

Profiles of Athletes

Throughout history athletes have been described in a variety of ways. According to Ogilvie (1974) an athlete is someone who is tough-minded and confident. An athlete is very success-oriented, ambitious, and typically a good leader (Ogilvie, 1974). However, Vanek (1977) identified an athlete as being someone who is independent and very self-confident. Vanek (1977) also described athletes as being dominant, egocentric, selfish, and of limited insight.

These two definitions of athletes distinctly differentiate athletes from non-athletes. Ogilvie (1974) postulated that perhaps athletes are drawn to sport because of the described personality characteristics. Ogilvie (1974) believed that there was a distinct possibility that the needs created by the personality characteristics of an athlete were met through participation in sport.

The variations found between the two aforementioned definitions of an athlete could be explained in several ways. One possible explanation is that differences exist in the definition of an athlete secondary to the great number of sports participated in. It may also be concluded that the nature of the various sports requires a more broad definition of what an athlete is (Kamal, Alharoun, Metuzals & Parsons, 1985). Another factor causing a divergence between the two definitions may be that different sports attract a different type of person. Therefore, individuals possessing the necessary characteristics for their sport may not possess those necessary for another sport. It is also possible that

participation in a particular sport may cause an individual to display certain personality characteristics (Kamal, Alharoun, Metuzals, & Parsons, 1985).

The diverse personality characteristics displayed by athletes may be one possible explanation for why a distinct pattern of motivation for participation in sport cannot be developed (Kamal, Alharoun, Metuzals, & Parsons, 1985). However, patterns of motivation have been developed for several subgroups of athletes. For instance, female athletes have been described as having an intrinsically motivated behavior pattern, whereas male athletes have demonstrated a more extrinsically motivated pattern of behavior (Carron, 1980).

Patterns of motivation have also been formulated in reference to team sport athletes and individual sport athletes. According to Shaw (1976):

> The nature of team sports presupposes that athletes will be less intrinsically motivated because success does not depend upon one individual's performance, but rather from the collective effort of the team. The difference from individual sports lies in a shift of the focus of control.

This definition may lead to a description of the team sport athlete as being extroverted and very self-confident (Straub, 1978).

Motivation of individual sport athletes has been described in a starkly contrasting way. Carron (1980) stated that "individual sport athletes are primarily concerned with their own achievement, training for themselves, often alone. Motivation is dependent upon enjoyment of the sport, feedback, and success." This motivation pattern directly coincides with Straub's (1978) description of an individual sport athlete. Straub (1978)

stated that the individual sport athlete was stable and confident, and inclined to exhibit introverted personality characteristics.

Kamal, Alharoun, Metuzals, and Parsons (1985) conducted a study regarding motivation of competitive athletes. The researchers selected 45 subjects living in the Ottawa, Canada area. All of the subjects were participants in competitive athletics, 24 participants were cross-country skiers and 21 participants were varsity basketball players. The subjects ranged in age from 14 to 29 years old. Each subject was given a questionnaire, developed by Ekstrand (1978) that measured intrinsic and extrinsic motivation. Each question had two to six possible responses, and the athletes were to select the one they agreed with most (Kamal, Alharoun, Metuzals, & Parsons, 1985).

The results of this study were somewhat surprising when compared to the Shaw (1976) definition of a team sport athlete and the Carron (1980) definition of an individual sport athlete. The Kamal, Alharoun, Metuzals, & Parsons study found that 74.1% of the cross-country skiers and 64.3% of the basketball players exhibited Intrinsic Motivation. No significant difference was found between these two groups. The study also found that 25.9% of the skiers and 35% of the basketball players exhibited Extrinsic Motivation. There was also no significant difference between these groups. These results indicate that both subject groups were primarily intrinsically motivated (Kamal, Alharoun, Metuzals, & Parsons, 1985).

CHAPTER III

METHODS

The purpose of this study was to determine if differences existed in the types of motivation demonstrated by female collegiate basketball players versus female collegiate swimmers.

Participants

This study was comprised of female basketball players participating in NCAA Division I athletics at the 11 schools of the Ohio Valley Conference, and female swimmers competing for the nine schools of the Midwest Conference. The participant sample (N=107) consisted of female collegiate basketball players (n=71) and female swimmers (n=36).

Procedures

The procedures that were used to administer this survey involved several steps. Initially, the head coaches of all the basketball and swim teams were contacted by letter. This letter introduced them to the study and gave them the opportunity to consider participation prior to the researcher contacting them via telephone (Appendix A). Approximately one week following receipt of the letter, the researcher contacted each

head coach by telephone and officially requested his or her team's participation in the study.

After permission had been granted, a packet was sent to the coaches. Included in the packet were detailed instructions for the coach, team manager, or other individual to use during administration of the survey (Appendix B), copies of the demographic survey for each athlete with instructions printed at the top (Appendix C), copies of the Sport Motivation Scale for each athlete (Appendix D) (Pelletier et al. 1995), debriefing statements for all members of the team (Appendix E) and a self-addressed, stamped envelope for return of the surveys.

The instructions sent to the coach, team manager, or other individual described all procedures that should be followed. The instruction sheet requested that a team manager, or other individual who was not a coach, administer the survey to avoid any response bias from the subjects. Also, it was requested that each coach assure their athletes that their participation in this study, and the results of the study, would in no way affect their status on the team. The instruction sheet the athletes received also included an assurance of confidentiality.

Following completion of the survey, each athlete returned them directly to the team manager or other designated individual. The person administering the surveys then gave each athlete a debriefing statement detailing the topic of the study. The surveys were then placed directly into the return envelope, sealed, and mailed to the researcher. Each survey was traceable only to a school, not to a specific athlete, and surveys were coded for anonymity. The researcher had no way of connecting any survey to an

individual athlete. However, the demographic information for each athlete was connected to his or her responses on the Sport Motivation Scale.

Measurements

Demographic Information

Each athlete completed a demographic questionnaire. The questionnaire included information regarding the athlete's age, sex, sport, race, and year in school. Also included in the questionnaire were questions regarding status on the team (i.e. starter or non-starter) and scholarship status (i.e. full, more than half, less than half or none). A final question regarding the total number of years that each athlete had participated in his or her respective sport was also included in the questionnaire.

These variables were chosen secondary to previous research identifying them as impacting motivation in collegiate athletes. Ryan (1977; 1980) found that athletic scholarships caused a decrease in IM for collegiate athletes. However, these studies focused on football and wrestling with a small sampling of female athletes. It is possible that type of sport may impact the effect of scholarship status and that is why it was included in this study (Ryan, 1977;1980). Amorose and Horn (2000) found that the perception of a scholarship might also influence the impact a scholarship has. If an athlete viewed a scholarship as a positive feedback based on successful performance, it would serve to enhance Intrinsic Motivation. However, if an athlete believed that the scholarship was a controller of their behavior it would serve to undermine Intrinsic

Motivation (Amorose & Horn, 2000). Briere et al. (in press) found that the more that athletes perceived themselves as competent and self-determined, the more they exhibited intrinsic motivation. This is why questions regarding self-perception of status on the team and years of experience were included in this study.

Sport Motivation Scale

The second questionnaire given to the athletes was the Sport Motivation Scale (Briere, Vallerand, Blais, & Pelletier, 1995). The Sport Motivation Scale (SMS) measured three types of Intrinsic Motivation (IM) (IM to Know, IM to Accomplish Things and IM to Experience Stimulation), three types of regulation for Extrinsic Motivation (Identified, Introjected and External), and Amotivation (Pelletier, et al 1995). The SMS consisted of 28 questions that were coded so that four questions were utilized to measure each of the seven types of motivation. The questions were answered using a seven point Likert Scale.

The English version of the Sport Motivation Scale was developed and tested by Pelletier et al. (1995), and was based on the French version of the scale (Briere et al., in press). Correlations among the seven subscales were expected to reveal the presence of the self-determination continuum within the SMS by showing more negative correlations among subscales farther apart on the continuum (Pelletier et al., 1995). A test-retest was performed to evaluate reliability and showed a mean correlation of .70 (Pelletier et al., 1997). These findings supported the belief that the SMS had adequate levels of validity and reliability.

The Sport Motivation Scale measures the seven subscales of motivation with four questions each. Intrinsic Motivation (IM) to know is measured by adding the answers to questions 2, 4, 23 and 27, and for IM to accomplish questions 8, 12, 15 and 20 are added. Questions 1, 13, 18 and 25 assess IM to experience stimulation, and Identified Regulation is measured by the sum of questions 7, 11, 17 and 24. Introjected Regulation is evaluated by numbers 9, 14, 21 and 26, and External Regulation is measured by adding the answers to questions 6, 10, 16 and 22. Amotivation is examined by adding number 3, 5, 19 and 28.

Data Analysis

It was hypothesized that female basketball players would exhibit higher levels of Extrinsic Motivation than female swimmers. Descriptive characteristics were obtained for the subjects. Mean age and number of years experience were calculated for the subjects. Frequency counts were obtained for year in school, scholarship status, status on the team and race/ethnicity.

The mean score on each of the seven subscales of the Sport Motivation Scale were compared for the two groups using a multivariate analysis of variance (MANOVA). This test was used to determine if any significant differences existed between female basketball players and female swimmers on the seven subscales of motivation. The confidence interval was set at 95% ($p<.05$) for this comparison.

CHAPTER IV

RESULTS

The purpose of this study was to evaluate the different types of motivation exhibited by female team and individual sport athletes. It was hypothesized that the female team sport athletes would display higher levels of extrinsic motivation than the female individual sport athletes.

Results

Subject Characteristics

The subject population was comprised of 107 Division I female collegiate athletes. Surveys were sent to all 11 schools in the Ohio Valley Conference, and ten of the schools returned the surveys. Surveys were also sent to the nine schools in the Midwest Conference, but only three of the schools returned them. Therefore, 71 basketball players and 36 swimmers were included in the study .

The mean age of the basketball players was 19.85 (SD=1.23). The mean age of the swimmers was 19.86 (SD=1.25). The basketball teams consisted of 24 freshmen (33.8%), 13 sophomores (18.3%), 24 juniors (33.8%) and ten seniors (14.1%). The swim teams contained eight freshmen (22.2%), ten sophomores (27.8%), ten juniors (27.8%) and eight seniors (22.2%).

Thirty-four percent (24) of the basketball players identified themselves as starters, whereas 80.6% (29) swimmers identified themselves as starters. Sixty-six percent or 47 basketball players identified themselves as non-starters while only 19.4% or seven swimmers classified themselves as non-starters.

The racial make-up of the two subject groups also varied. Fifty-two (73.2%) of the basketball players and 35 (97.1%) of the swimmers reported their race as Caucasian. Nineteen (26.8%) of the basketball players and no swimmers were African-American. One swimmer reported Asian-American heritage.

The scholarship status of the athletes was also evaluated. These results showed that one (2.8%) swimmer was receiving a full scholarship versus 62 (87.3%) of the basketball players. Six (16.7%) swimmers and three (4.2%) basketball players reported receiving scholarships covering more than half of school expenses. Sixteen (44.4%) of the swimmers and no basketball players were receiving scholarships of less than half school expenses. Thirteen (36.1%) of the swimmers and six (8.5%) of the basketball players reported receiving no scholarships.

Motivation Across Team Settings

A MANOVA was performed comparing the basketball players and swimmers across the seven subscales. The results revealed a significant main effect for team (Wilks's Lambda = .858, $F(1,105) = 2.34$, $p = .03$). Subsequent univariate analyses were performed to determine which comparisons were statistically significant.

Intrinsic Motivation

The univariate analyses revealed no significant difference between the basketball players and the swimmers for any of the subtypes of intrinsic motivation. Intrinsic Motivation to know (IM – know) was evaluated using four questions from the Sport Motivation Scale (SMS). These results showed a mean score of 16.68 (SD=4.93) for basketball players and 17.08 (SD=4.58) for swimmers ($F(1,105) = .17$, $p = .68$) (Figure 1). Intrinsic Motivation to accomplish (IM – accomplish) was also measured by the SMS, and the results gave mean score of 19.47 (SD=4.72) for basketball players and 19.06 (SD=3.68) for swimmers ($F(1,105) = .21$, $p= .65$) (Figure 1). Intrinsic Motivation to experience stimulation (IM – experience stimulation) was the final type of intrinsic motivation assessed by the SMS. The results of this section produced a mean score of 19.27 (SD=4.81) for the basketball players and 20.28 (SD=3.56) for the swimmers ($F(1,105) = 1.24$, $p= .27$) (Figure 1).

Extrinsic Motivation

The univariate analyses produced a significant difference for Introjected Regulation . No significant difference was found for the other two categories of extrinsic motivation. Extrinsic Motivation (EM) - identified regulation had a mean score of 18.23 (SD=5.35) for the basketball players and 19.69 (SD=3.58) for the swimmers ($F(1,105) =$

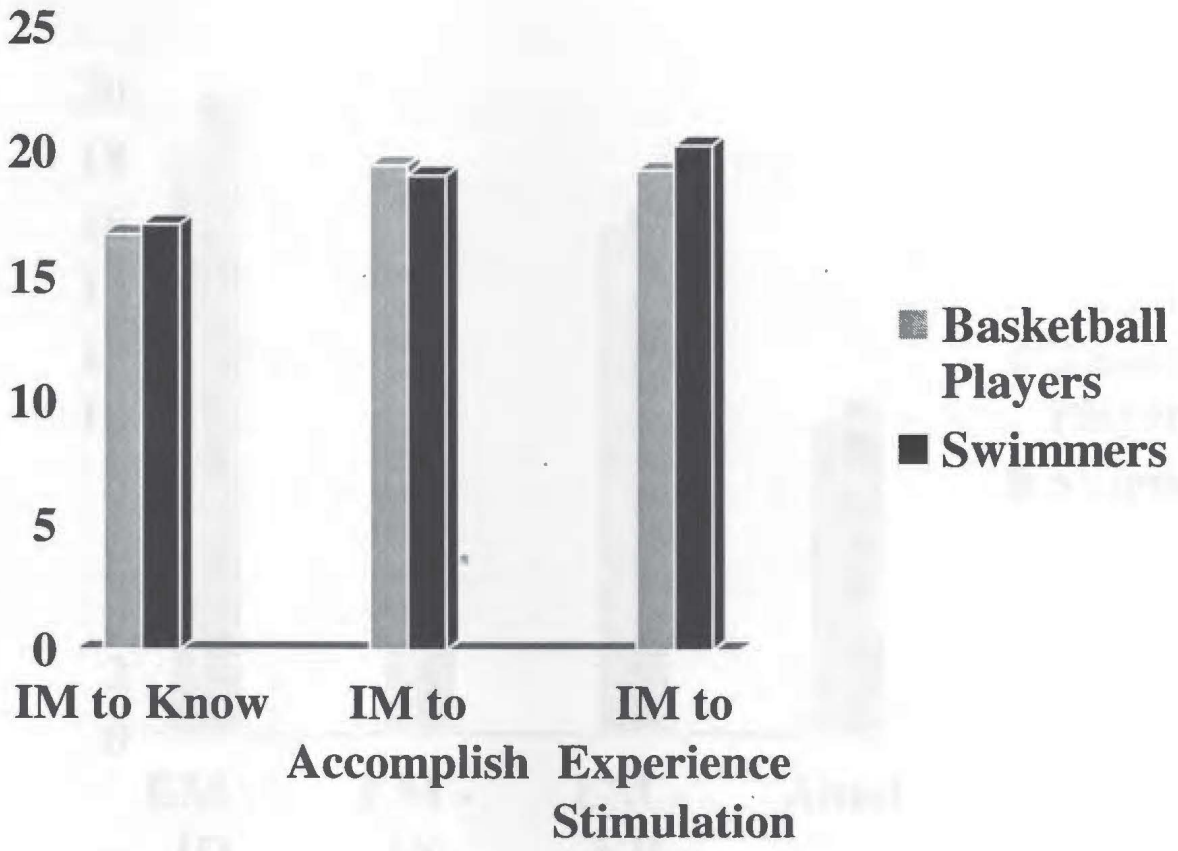

Figure 1. Mean Scores on the Intrinsic Motivation Categories of the Sport Motivation Scale

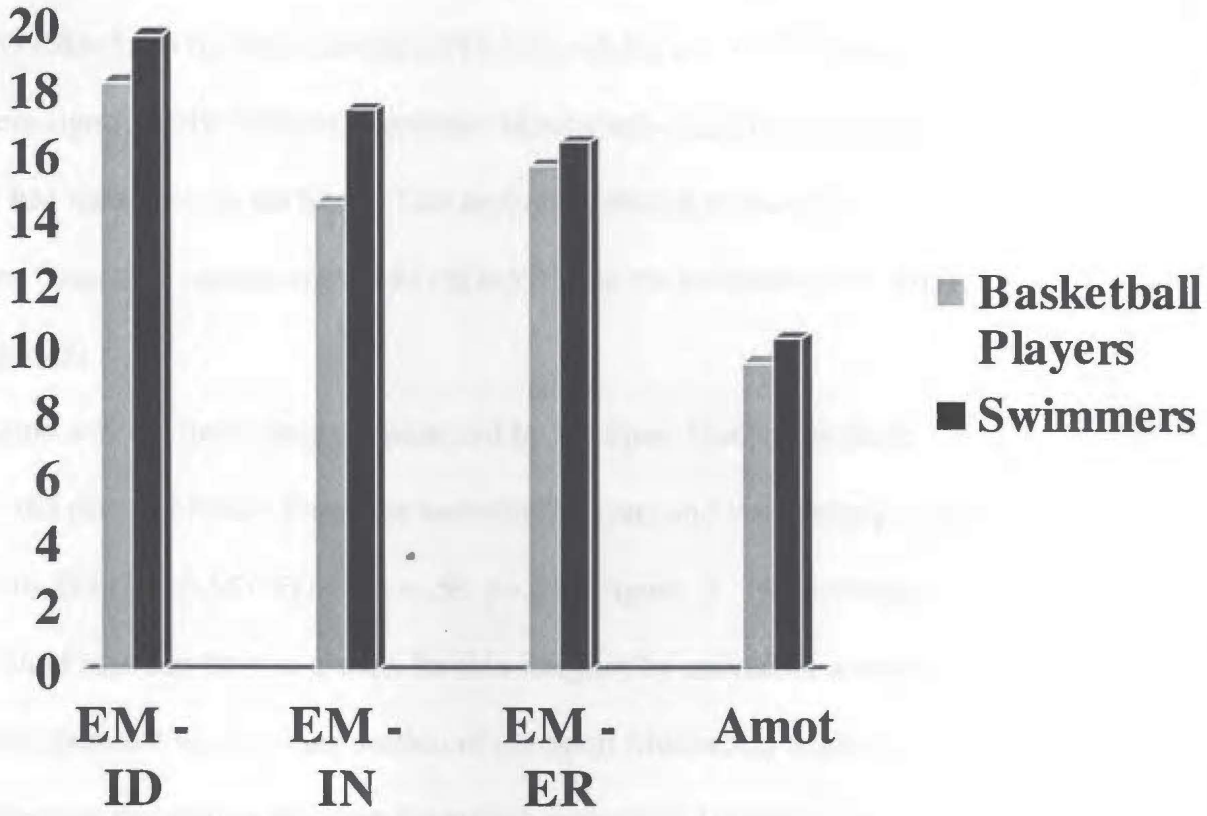

Figure 2. Mean Scores on the Extrinsic Motivation and Amotivation Categories of the Sport Motivation Scale.

(EM – ID= Extrinsic Motivation Identified Regulation, EM – IN= Extrinsic Motivation Introjected Regulation ($p<.05$), EM – ER= Extrinsic Motivation External Regulation, Amot = Amotivation)

2.21, p=.14) (Figure 2). Extrinsic Motivation - introjected regulation was also evaluated by the SMS. This section resulted in a mean score of 14.51 (SD=4.88) for the basketball players and 17.39 (SD=5.04) for the swimmers ($F(1,105) = 8.15$, $p = .005$) (Figure 2). These results were significantly different. Extrinsic Motivation – external regulation was the final type of EM measured by the SMS. This section produced a mean score of 15.66 (SD=5.25) for the basketball players and 16.42 (SD=5.06) for the swimmers ($F(1,105) = .51$, $p= .48$) (Figure 2).

Amotivation was the final category measured by the Sport Motivation Scale. A mean score of 9.563 (SD=4.55) was found for basketball players and swimmers produced a mean score of 10.333 (SD=5.55) ($F(1,105) = .59$, $p=.45$) (Figure 2). No significant difference was found between the two groups for this category by univariate analysis.

The highest possible score on any section of the Sport Motivation Scale was 28. The higher the score on the section the more the athlete experienced that type of motivation. The basketball players mean Intrinsic Motivation scores ranged from 16.68 (SD=4.58) to 19.47 (SD=4.72) with the highest score occurring for IM to accomplish. The swimmers mean IM scores ranged from 17.08 (SD=4.58) to 20.28 (SD=3.56) with the highest score on IM to experience stimulation.

The mean extrinsic motivation scores showed slightly lower ranges. The mean EM scores for the basketball players ranged from 14.51 (SD=4.88) to 18.23 (SD=5.35) with the highest score on identified regulation. The mean EM scores for swimmers ranged from 16.42 (SD=5.06) to 19.69 (SD=3.59) with the greatest tendency toward identified regulation. Both groups scored highest on the type of extrinsic motivation

closest to intrinsic motivation along the self-determination continuum (Deci and Ryan, 1985;1992).

Discussion

Intrinsic Motivation

Kamal, Alharoun, Metuzals & Parsons (1985) conducted a similar study examining the motivational differences of cross-country skiers and basketball players. However, Kamal, Alharoun, Metuzals and Parsons (1985) used a motivation questionnaire developed by Ekstrand (1978) versus the Sport Motivation Scale, which was translated into English in 1995 and used in the present study (Pelletier et al, 1995).

Kamal, Alharoun, Metuzals and Parsons (1985) found that 74.1% of the cross-country skiers and 64.3% of the basketball players included in their study showed greater levels of Intrinsic Motivation than Extrinsic Motivation. This was similar to the results of the current study, which found both groups to have slightly higher levels of IM. Kamal, Alharoun, Metuzals and Parsons (1985) found that the level of IM shown by cross-country skiers was significantly greater than that of the basketball players ($p<.05$). Watson (1984) found elite junior swimmers (13-15 years old) to display significantly greater levels of Intrinsic Motivation than Extrinsic Motivation. Contrary to the hypothesis of this study, no significant difference was found between the basketball players and swimmers for any category of IM. It is apparent from the results of the current study that female basketball players in the Ohio Valley Conference and female swimmers in the Midwest Conference exhibited similar types of Intrinsic Motivation (Figure 1).

Extrinsic Motivation

Based on definitions of team and individual sport athletes (Straub, 1978; Carron, 1980), it was expected that team sport athletes would demonstrate higher levels of extrinsic motivation than individual sport athletes. The results of this study did not support this hypothesis. The current study showed no significant difference between the two groups in identified regulation and external regulation. A significant main effect for team was found between the two groups using a MANOVA with a significance level of $p<.005$. Subsequent univariate analyses revealed that the significant difference occurred for the EM – introjected regulation. However, it was found that the swimmers exhibited higher levels of this type of extrinsic motivation than basketball players, which contradicted the hypothesis.

The findings of this study are inconsistent with those of previous research. Kamal et al. (1985) found no significant difference between team sport and individual sport athletes with regards to extrinsic motivation. The current study found individual sport athletes displayed significantly greater levels of extrinsic motivation – introjected regulation. The results of this study also contradicted those of Watson (1984), which found 13-15 year old swimmers to display significantly greater levels of intrinsic motivation than extrinsic motivation.

Several differences existed between the present study and previous studies, any of which may have contributed to the contradiction in results (Kamal, Alharoun, Metuzals, & Parsons, 1985; Watson, 1984). The subject population for the present study consisted of collegiate, female basketball players and swimmers. Kamal, Alharoun,

Metuzals and Parsons (1985) found results contradictory to those of the present study using a subject group of 14-29 year old cross-country skiers and basketball players. Watson's (1984) study of elite junior swimmers (13-15 years old) also contradicted the findings of the current study. While Watson's (1984) subjects were younger than those involved in the current study, it is possible that they were more elite based on the level of competition they were participating in. If the junior swimmers were more elite, that may explain the differences occurring between Watson's (1984) subjects and the swimmers involved in the current study.

Kamal, Alharoun, Metuzals and Parsons (1985) utilized cross-country skiers for the individual sport athletes involved in their study. While cross-country skiing and swimming are both individual sports, the environment the two sports take place in are very different. Cross-country skiers practice outside in a variety of surroundings, while swimmers are repeatedly exposed to the exact same environment. The redundancy of the environment during swimming may cause feelings of boredom and frustration leading to decreased levels of intrinsic motivation, while the variety involved in cross-country skiing may lead to increased enjoyment and therefore increased intrinsic motivation. Also, swimming is an endurance sport requiring long hours of practice with little time off, whereas cross-country skiing is more skill based and may allow for greater rest periods. This may lead to a feeling of obligation to practice among the swimmers in order to avoid a decrease in performance, and this would undermine intrinsic motivation.

Watson (1984) found elite junior swimmers to exhibit higher levels of intrinsic motivation than extrinsic motivation, which was not supported within the current study, in that swimmers displayed significantly greater levels of introjected regulation (extrinsic

motivation) than did the basketball players. The athletes involved in Watson's (1984) study ranged from 13 to 15 years old. The current study involved athletes ages 18 to 22 years. It is possible that continued exposure to the exact same environment may lead to decreased enjoyment, and therefore decreased IM, as the athlete ages. Kamal, Alharoun, Metuzals and Parsons (1985) included athletes ages 14 to 29 years, which may explain the similarity to Watson's (1984) individual sport findings.

The number of years an athlete has participated in a sport may also influence their motivation. Given that the athletes involved in the current study were older than those studied by Watson (1984), it is possible that they have participated in their sport for more years. As an athlete continues participation in a sport, he or she may begin to feel obligated to continue participation due to parental or coach influences. This may also explain the higher levels of EM – introjected regulation seen in the current study versus Watson (1984).

Gender may also have influenced the difference in results between this study and previous studies. Kamal, Alharoun, Metuzals and Parsons (1985) and Watson (1984) both included males and females in their studies. The current study included only female athletes. Previous research has shown females to exhibit greater levels of intrinsic motivation than males (Loy, Birrell & Rose, 1976; Carron, 1980). Female basketball players and swimmers in the current study displayed higher intrinsic motivation levels than extrinsic motivation levels. The greater level of intrinsic motivation across both sports for females may explain why no significant difference existed between the two groups for IM. Had male athletes been included in this study, a significant difference

may have been found between the basketball players and swimmers for intrinsic motivation.

Sample size may have been another factor contributing to the results not supporting the hypothesis. Surveys were sent to all 11 schools involved in the Ohio Valley Conference and to all nine schools involved in the Midwest Conference. However, despite repeated attempts by the researcher to obtain more surveys, only three of the nine swim teams returned the surveys. Therefore only 36 swimmers were included in the study. Ten of the eleven basketball teams returned the surveys, so 71 basketball players were included in the study. An adequate representation of the swimmers in the Midwest Conference may not have been obtained due to the low number of subjects involved. Consequently, the results of this study may not be an accurate comparison of the two sports.

Scholarship status may also contribute to variations in motivation. The age of the subjects involved in Kamal, Alharoun, Metuzals and Parsons (1985) and Watson (1984) would suggest that at least some of them were not receiving athletic scholarships. Previous research has shown that an athletic scholarship could serve to undermine Intrinsic Motivation if it is viewed as controlling sport participation (Ryan, 1977). If an athletic scholarship is seen as a reward for a successful performance, the scholarship may serve to increase IM (Ryan, 1980). Amorose and Horn (2000) however found that only six percent of the variation in Intrinsic Motivation found among their subjects could be attributed to scholarship status. Therefore, while scholarship status may influence motivation, it is not the only influence.

Only 2.8% of the swimmers in the current study were receiving full scholarships versus 87.3% of the basketball players. If the scholarships are viewed as positive reinforcement for a successful performance, it could explain the high levels of IM seen among the basketball players. Also because there is not as much competition among the basketball players for the scholarships, they may have less influence on the athlete in general. However, the high levels of EM – introjected regulation seen along with the low percentage of scholarships contradicts previous literature that found IM to be enhanced in environments where a small number of scholarships were available (Ryan, 1980).

Perceptions of coaching behavior may have also had an impact on the motivation of the athletes. Perceived coaching behavior is important for a number of reasons. If a coach is viewed as autocratic and critical, the athlete may exhibit lower levels of IM. Conversely if a coach is viewed as democratic and encouraging, this may serve to enhance IM. This theory has been tested in physical education contexts and can carry over to the sport setting (Treasure & Roberts, 1995).

Previous studies have shown that how an athlete perceives the interactions that occur with the coach may directly influence motivation and performance (Solomon et al., 1996). While this factor was not examined in the current study, it is possible that differences existed between the two sports. Swimmers practice very independently with little coach interaction due to the solitary nature of swim practices. However basketball practices involve constant interactions between the coaches and the athletes. Therefore it is possible that the lack of perceived positive interaction between the swimmers and the coach may have contributed to the higher levels of extrinsic motivation seen among the swimmers.

Perceived ability may also have an impact on the motivation of the athlete and the athlete's perceived competence may be a positive predictor of intrinsic motivation (Papaioannou, 1997). This variable was not measured in the current study, but the high levels of intrinsic motivation seen across both groups may indicate high levels of perceived competence. Further research into the effect of perceived competence is warranted.

CHAPTER V

SUMMARY AND CONCLUSIONS

The purpose of this study was to determine if differences existed in the type of motivation exhibited by collegiate female basketball players and swimmers when assessed using the Sport Motivation Scale (SMS). It was hypothesized that female basketball players (team sport athletes), would display higher levels of extrinsic motivation than female swimmers (individual sport athletes).

A demographic questionnaire (Appendix C) and the Sport Motivation Scale (Appendix D) were mailed to all women's basketball teams in the Ohio Valley Conference and all women's swim teams in the Midwest Conference. Also included in the mailing were instructions for administering the surveys and a self-addressed, stamped return envelope. The demographic questionnaire assessed age, gender, race, year in school, number of years experience, status on the team (starter, etc.), and scholarship status (full, > than half, etc.). The Sport Motivation Scale evaluated the type of motivation exhibited based on the self-determination theory (Deci & Ryan, 1985; 1992). The subject population consisted of 71 basketball players and 36 swimmers.

Summary of Findings

This study produced the following results.

1. A significant difference (p=.005) was found between the two groups for EM - introjected regulation, with female swimmers displaying higher levels than female basketball players.

2. No significant difference was found for the other two types of extrinsic motivation.
3. No significant difference was found between the two groups for any of the types of intrinsic motivation or amotivation.

Conclusions

Using a MANOVA, no significant difference was found between the basketball players and swimmers for any of the categories of intrinsic motivation, and both groups displayed higher levels of IM than extrinsic motivation. No significant difference was found between the two groups for identified regulation or external regulation, however, swimmers displayed significantly greater levels of introjected regulation. This type of EM involves feelings of guilt and obligation to participate. This may have been a result of the nature of the sport of swimming. Swimming is an endurance sport requiring long hours of practice and very few rest periods, with very little room for time off from practice. This may cause a swimmer to experience a feeling of guilt if they take time off from practice, and therefore they feel obligated to practice continuously with little time off. However, basketball is a more skill based sport meaning that practices are less endurance oriented and are more conducive to time off from practice. This could explain the lower levels of introjected regulation found among the basketball players.

Additionally, swimming practices are very repetitious in nature. The nature of swim training is often long, year round, and monotonous. Also practices are very autocratic in that the athletes have very little input into what is done or the outcome.

These factors may lead to frustration and a lack of enjoyment in the sport, and may explain the high levels of introjected regulation. Conversely, basketball consists of significant amount of variation allowing for less repetition. This may contribute to the athletes feeling less bored with the practices, therefore they may practice more out of enjoyment and less out of obligation.

Previous studies have shown that gender may have a significant impact on the type of motivation an athlete demonstrates (Loy, Birrell & Rose, 1976; Carron, 1980). This study included only female athletes, so the impact of gender was not evaluated. The current study found that the female subjects displayed higher levels of intrinsic motivation than extrinsic motivation. The conclusion from this study would be that the higher levels of IM across both sports in the present study could be due to the lack of male subjects.

The subjects involved in the current study were 18 to 22 years old. The limited age range, and the fact that all the subjects were collegiate athletes, could have contributed to the outcome of the study. Previous studies have involved both younger and older athletes, which might explain variations found in the results of this study versus those of previous studies (Kamal, Alharoun, Metuzals & Parsons, 1985; Watson, 1984). The fact that the current subjects were collegiate athletes would indicate that some of them were receiving scholarships. A scholarship can serve to enhance intrinsic motivation if it is viewed as a reward for successful performance (Ryan, 1977; 1980). As both teams displayed high levels of IM, it is likely that the scholarships were viewed as positive reinforcement.

The number of scholarships available may also have contributed to the outcome of this study. Over 85% of the basketball players were receiving full scholarships, while only 2.8% of the swimmers received full scholarships. The lack of substantial monetary reinforcement similar to that of other sports could have contributed to the higher levels of EM found among the swimmers. In addition, the high percentage of full scholarships among the basketball players may have caused the athletes to be less focused on the scholarships and more focused on intrinsic sources of motivation. Overall the conclusion would be that this study did not find type of sport participated in to have a significant impact on the motivation of the athletes.

Recommendations for Further Study

The results of this study indicate that further study into this topic is necessary. Future studies would need to determine if the type of sport influences motivation, or if individuals chose their sport because of the type of motivation they experience. It is also possible that it not only matters if the athlete participates in a team or individual sport, but that every sport involves a different type of motivation. A study that could determine the impact type of sport has on motivation would positively contribute to current motivation literature. A study evaluating the effect perceptions of coaching behavior and the impact it has on motivation would also be beneficial. Additional study into the impact of gender on motivation would also be warranted as this study involved only females.

References Cited

Amorose, A.J. and Horn, T.S. (2000.) Intrinsic Motivation: Relationships with Collegiate Athletes' Gender, Scholarship Status, and Perceptions of Their Coaches' Behavior. Journal of Sport and Exercise Psychology, 22, 63-84.

Bandura, A. (1982). Self-efficacy Mechanism in Human Agency. American Psychologist, 37, 122-147.

Bandura, A. (1986). Social Foundations of Thought and Action: A Social Cognitive Theory. Prentice-Hall: Englewood Cliffs, NJ.

Black, S.J. and Weiss, M.R. (1992). The Relationship Among Perceived Coaching Behaviors, Perceptions of Ability, and Motivation in Competitive Age-Group Swimmers. Journal of Sport and Exercise Psychology, 14, 309-325.

Blais, M.R., Sabourin, S., Boucher, C., Vallerand, R.J. (1990). Toward a Motivational Model of Couple Happiness. Journal of Personality and Social Psychology, 59, 1021-1031.

Briere, N.M., Vallerand, R.J., Blais, M.R., and Pelletier, L.G. (in press.) Development and Validation of a Measure of Intrinsic, Extrinsic, and Amotivation in Sports: the Sport Motivation Scale (SMS). Journal International de Psychologie du Sport.

Carron, A. (1980.). Social Psychology of Sport. Movement Publication: New York, NY.

Chantal, Y., Guay, F., Dobreva-Martinova, T., and Vallerand, R.J. (1996.) Motivation and Elite Performance: an Exploratory Investigation With Bulgarian Athletes. International Journal of Sport Psychology, 27, 173-182.

Cox, R.H. (1998.) Sport Psychology: Concepts and Applications. McGraw-Hill: Boston, MA, 239-240.

Deci, E.L. (1975.) Intrinsic Motivation. Plenum: New York, NY.

Deci, E.L. and Ryan, R.M. (1991.) On the Nature and Functions of Motivational Theories. Psychological Science, 3, 167-171.

Deci, E.L., Nezlek, J., and Sheinman, L. (1981.) Characteristics of the Rewarder and Intrinsic Motivation of the Rewardee. Journal of Personality and Social Psychology, 40, 1-10.

Deci, E.L. and Ryan, R.M. (1985.) Intrinsic Motivation and Self-determination in Human Behavior. Plenum: New York, NY.

Deci, E.L., Schwartz, A.J., Sheinman, L., and Ryan, R.M. (1981.) An Instrument to Assess Adults' Orientation Towards Control Versus Autonomy With Children: Reflections on Intrinsic Motivation and Perceived Competence. Journal of Educational Psychology, 73, 642-650.

Duda, J.L. (1989.) Goal Perspectives and Behavior in Sport and Exercise Settings. In C. Ames and M. Maehr (eds.), Advances in Motivation and Achievement (vol. 6, pp. 81-115). JAI Press: Greenwich, CT.

Ekstrand, G. (1978.) Intrinsic Motivation in Age Group and Masters Competitive Swimmers. Undergraduate Research Project, School of Human Kinetics, University of Ottawa.

Feltz, D.L., Gould, D., Horn, T.S., and Weiss, M.R. (1982). Perceived Competence Among Youth Swimmers and Dropout. Paper presented at the meeting of the North American Society for the Psychology of Sport and Physical Activity, College Park, MD.

Feltz, D.L. and Petlichkoff, L. (1983). Perceived Competence Among Interscholastic Sport Participants and Dropouts. Canadian Journal of Applied Sport Sciences, 8, 231-235.

Fortier, M.S., Vallerand, R.J., Briere, N.M., and Provender, P. (1995.) Competitive and Recreational Sport Structures and Gender: a Test of Their Relationship with Sport Motivation. International Journal of Sport Psychology, 26, 24-39.

Fortier, M.S., Vallerand, R.J., and Guay, F. (1995.) Academic Motivation and School Performance: Toward a Structural Model. Contemporary Educational Research, 20, 257-274.

Frederick, C.M., Morrison, C., and Manning, T. (1996.) Motivation to Participate, Exercise Affect, and Outcome Behaviors Toward Physical Activity. Perceptual and Motor Skills, 82, 691-701.

Fry, D.A.P., McClements, J.D. and Sefton, J.M. (1981). A Report on Participation in the Saskatoon Hockey Association. SASK Sports: Saskatoon, Canada.

Gould, D. and Horn, T. (1984). Participation Motivation in Young Athletes. In J.M. Silva III and R.S. Weinberg (Eds.), Psychological Foundations of Sport. (pp. 359-370). Human Kinetics: Champaign, IL.

Gould, D., Feltz, D., Horn, T., and Weiss, M. (1982). Reasons for Discontinuing Involvement in Competitive Youth Swimming. Journal of Sport Behavior, 5, 155-165.

Guay, F. and Vallerand, R.J. (1997.) Social Context, Students' Motivation and Academic Achievement. Toward a Process Model. Social Psychology of Education, 1, 35-58.

Harackiewicz, J.M. (1989.) Performance Evaluation and Intrinsic Motivation Processes: the Effects of Achievement Orientation and Rewards. In D.M. Buss and N. Carter (eds.), Personality Psychology: Recent Trends and Emerging Directions (pp.128-137). Springer-Verlag: New York, NY.

Harter, S. (1978). Effectance Motivation Reconsidered: Toward a Developmental Model. Human Development, 21, 34-64.

Heider, F. (1944). Social Perception and Phenomenal Causality. Psychological Review, 51, 358-374.

Heider, F. (1958). The Psychology of Interpersonal Relations. John Wiley and Sons: New York, NY.

Horn, T.S. (1987.) The Influence of Teacher-Coach Behavior on the Psychology Development of Children. In D. Gould and M.R. Weiss (eds.), Advances in Pediatric Sport Sciences, Vol.2: Behavioral Issues (pp.121-142). Human Kinetics: Champaign, IL.

Horn, T.S. (1992.) Leadership Effectiveness in the Sport Domain. In T.S. Horn (ed.), Advances in Sport Psychology (pp. 181-199). Human Kinetics: Champaign, IL.

Kamal, A.F. (1989.) Extrinsic and Intrinsic Motivation of Swimmers. International Journal of Physical Education, 26, 26-32.

Kamal, A.F., Alharoun, M., Metuzals, P., and Parsons, C. (1985). Intrinsic Versus Extrinsic Motivation in Team Sports Athletes and Individual Sport Athletes. FIEP Bulletin, 55, 17-23.

Klint, K. and Weiss, M.R. (1986). Dropping In and Dropping Out: Participation Motives of Current and Former Youth Gymnasts. Canadian Journal of Applied Sport Sciences, 11, 106-114.

Loy, J., Birrell, S., and Rose, D. (1976.) Attitudes Held Toward Agonistic Activities as a Function of Selected Social Identities. Quest, 26, 81-93.

Maslow, A. (1970). Motivation and Personality. Harper and Row: New York, NY.

Ogilvie, B. (1974.) Personality Traits of Competitors and Coaches. Issues in Physical Education and Sports. California National Press: Palo Alto, CA.

Papaioannou, A. (1997). Perceptions of Motivational Climate, Perceived Competence, and Motivation of Students of Varying Age and Sport Experience. Perceptual and Motor Skills, 85, 419-430.

Pelletier, L.G., Fortier, M.S., Vallerand, R.J., Tuson, K.M., Briere, N.M., and Blais, M.R. (1995.) Toward a New Measure of Intrinsic Motivation, Extrinsic Motivation and Amotivation in Sports: the Sport Motivation Scale. Journal of Exercise and Sport Psychology. 35-53.

Pelletier, L.G. and Vallerand, R.J. (1985.) Effects of Coaches' Interpersonal Behavior on Athletes' Motivational Level. Paper presented at annual conference of the Canadian Society for Psychomotor Learning and Sport Psychology, Montreal.

Roberts, G.C. (1982). Achievement Motivation in Sport. In R. Terjung (ed.), Exercise and Sport Science Reviews (Vol. 10). Franklin Institute Press: Philadelphia, PA.

Roberts, G.C., Kleiber, D.A., and Duda, J.L. (1981). An Analysis of Motivation in Children's Sport: The Role of Perceived Competence in Participation. Journal of Sport Psychology, 3, 201-211.

Ryan, R.M. (1995.) Psychological Needs and the Facilitation of Integrative Processes. Journal of Personality, 63, 397-428.

Ryan, R.M., Connell, J.P., and Deci, E. (1985.) A Motivational Analysis of Self-determination and Self-Regulation in Education. In C. Ames and R.E. Ames (eds.), Research on Motivation in Education: the Classroom Milieu (pp.13-51). Human Kinetics: Champaign, IL.

Shaw, B.M. (1976.) Intrinsic and Extrinsic Motivation. General Learning Press: Morrisstown, KY.

Smith, R.E., Smoll, F.L. and Hunt, E.B. (1977). A System for the Behavioral Assessment of Athletic Coaches. Research Quarterly, 48, 401-407.

Smoll, F.L., Magill, R.A., and Ash, M.J. (1988). Children in Sport. Human Kinetics: Champaign, IL.

Snyder, E.E. and Spreitzer, E. (1979.) Orientations Toward Sport: Intrinsic, Normative, and Extrinsic. Journal of Sport Psychology, 1, 170-175.

Solomon, G., Streigel, D., Eliot, J., Heon, S., Maas, J. and Wayda, V. (1996). The Self-fulfilling Prophecy in College Basketball: Implications for Effective Coaching. Journal of Applied Sport Psychology, 8, 44-59.

Straub, W.F. (1978.) Sport Psychology: an Analysis of Athletic Behavior. Movement Publication: New York, NY.

Treasure, D. and Roberts, G. (1995). Applications of Achievement Goal Theory to Physical Education: Implications for Enhancing Motivation. Quest, 47, 475-489.

Vallerand, R.J. (1997.) Toward a Hierarchical Model of Intrinsic and Extrinsic Motivation. In M.P. Zanna (Ed.) Advances in Experimental Social Psychology (vol.29, pp.271-360). Academic Press: New York, NY.

Vallerand, R.J. and Bissonnette, R. (1992.) Intrinsic, Extrinsic, and Amotivational Styles as Predictors of Behavior: a Prospective Study. Journal of Personality, 60, 599-620.

Vallerand, R.J., Briere, N.M., Blanchard, C., and Provender, P. (1997.) Development and Validation of the Multidimensional Sportspersonship Orientations Scale. Journal of Sport and Exercise Psychology, 19, 197-206.

Vallerand, R.J., Deci, E.L., and Ryan, R.M. (1987.) Intrinsic Motivation in Sport. Exercise and Sport Sciences Review, 15, 389-425.

Vallerand, R.J. and Losier, G.F. (1999.) An Integrative Analysis of Intrinsic and Extrinsic Motivation in Sport. Journal of Applied Sport Psychology, 11, 142-169.

Vanek, M. (1977). Zur Personlichkeit des Sportlers (German). Verlag Karl Hoffman, Schordorf.

Watson, G.G., Blanksby, B.A., and Bloomfield, J. (1984.) Reward Systems in Children's Sport: Perceptions and Evaluations of Elite Junior Swimmers. Journal of Human Movement Studies, 10, 123-156.

Weiner, B. (1985). An Attributional Theory of Achievement Motivation and Emotion. Psychological Review, 92, 548-573.

Appendix A

Introductory Letter to the Coaches

Meghan McGovern
Eastern Illinois University
Charleston, IL 61920
Trainer327@aol.com

Dear Coach,

Thank you for agreeing to allow your team to participate in this study. Enclosed you will find copies of the surveys, instructions for the person administering the surveys, and a debriefing statement to be read to the athletes following completion of the survey. Please forward these documents to the individual who will be administering the survey.

If you are interested in the results of this study, please contact the researcher via e-mail (Trainer327@aol.com). Again, thank you for your participation in this study.

Sincerely,

Meghan McGovern

Appendix B

Instructions for Administering the Survey

Instructions for Administering this Survey

1. Please distribute the surveys to the athletes prior to a practice.

2. If possible, make sure no coaches are present during the administration of the surveys.

3. Please make sure the athletes are not aware of the content of the survey prior to taking it.

4. Enclosed are instructions for the athletes regarding the surveys. Please read these to the athletes before they begin taking the surveys.

5. Collect the completed surveys and give each athlete a debriefing statement.

6. Place the completed surveys directly into the return envelope and seal it. Please do not show the completed surveys to anyone, including the coaches.

Please return the surveys as quickly as possible and thank you for assisting in the administration of these surveys.

Appendix C

Demographic Questionnaire

All of the results from this survey will be kept completely confidential, so please answer as honestly as possible. There will be no way for anyone other than the researcher to connect your survey with your identification. If at any time you wish to discontinue filling out this survey, please return the survey to the person administering it and it will not be held against you in any way. Thank you for participating in this study.

Date: _____

Age: _____

Gender: ____

Race: ____

Sport: ____

College you are attending: _____

Year in school: ____ (By number of years attended, not credit hour)

Total number of years you have participated in this sport: _____ (including youth leagues, high school, etc.)

Are you a starter? Y N

Are you on scholarship? Full More than ½ Less than ½ None

Appendix D

Sport Motivation Scale

Using the scale below, please indicate to what extent each of the following items correspond to one of the reasons for which you are presently practicing your sport.

	Does Not Correspond At all			Corresponds moderately		Corresponds exactly	
1. For the pleasure I feel in living exciting experiences	1	2	3	4	5	6	7
2. For the pleasure it gives me to know more about the sport I practice	1	2	3	4	5	6	7
3. I used to have good reasons for doing sports but now I am asking myself if I should continue doing it.	1	2	3	4	5	6	7
4. For the pleasure of discovering new training techniques.	1	2	3	4	5	6	7
5. I don't know anymore; I have the impression that I am incapable of succeeding in this sport	1	2	3	4	5	6	7
6. Because it allows me to be well regarded by people I know	1	2	3	4	5	6	7
7. Because, in my opinion, it is one of the best ways to meet people.	1	2	3	4	5	6	7
8. Because I feel a lot of personal satisfaction while mastering certain difficult training techniques	1	2	3	4	5	6	7
9. Because it is absolutely necessary to do something if one wants to be in shape	1	2	3	4	5	6	7
10. For the prestige of being an athlete	1	2	3	4	5	6	7
11. Because it is one of the best ways I have chosen to develop other aspects of myself	1	2	3	4	5	6	7
12. For the pleasure I feel while improving some weak points	1	2	3	4	5	6	7
13. For the excitement I feel when I am really in the activity	1	2	3	4	5	6	7
14. Because I must do sports to feel good about myself	1	2	3	4	5	6	7
15. For the satisfaction I experience while I am perfecting my abilities	1	2	3	4	5	6	7
16. Because people around me think it is important to be in shape.	1	2	3	4	5	6	7

17. Because it is a good way to learn lots of things which could be useful to me in other areas of life	1	2	3	4	5	6	7
18. For the intense emotions that I feel while I am doing a sport that I like	1	2	3	4	5	6	7
19. It is not clear to me anymore; I don't really think my place is in sport	1	2	3	4	5	6	7
20. For the pleasure that I feel while executing certain difficult movements	1	2	3	4	5	6	7
21. because I would feel bad if I was not taking time to do it.	1	2	3	4	5	6	7
22. To show others how good I am at my sport	1	2	3	4	5	6	7
23. For the pleasure that I feel while learning training techniques that I have never tried before	1	2	3	4	5	6	7
24. Because it is one of the best ways to maintain good relationships with my friends	1	2	3	4	5	6	7
25. Because I like the feeling of being totally immersed in the activity	1	2	3	4	5	6	7
26.Because I must do sports regularly	1	2	3	4	5	6	7
27. For the pleasure of discovering new performance strategies	1	2	3	4	5	6	7
28. I often ask myself; I can't seem to achieve the goals that I set for myself.	1	2	3	4	5	6	7

Appendix E

Debriefing Statement

Debriefing Statement

You have just completed the Sport Motivation Scale. This scale is used to assess the type of motivation an athlete feels regarding his or her sport. All of the answers you gave will be kept completely confidential and will be used for research purposes only. No one, other than the researcher, will be able to connect your answers with you. If you have any questions regarding this survey, please email the researcher at Trainer327@aol.com. Thank you for participating in this study.