COLLEGIATE ATHLETES' MOTIVATIONAL STYLES AND ATHLETE SATISFACTION IN TEAM SPORTS

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ABSTRACT

The purpose of this quantitative correlational study was to examine if and to what extent there is a correlation between athletes' motivational styles (intrinsic, external, identified, introjected, integrated, and amotivated) and the individual performance construct of athletes' satisfaction within a two-year university system in the Western United States. The theoretical framework for assessing the correlation between athletes' motivational styles and satisfaction is self-determination theory (SDT). Six research questions addressed correlations between athletes' motivational styles of intrinsic, external, identified, introjected, integrated, and amotivated, and the individual performance construct of athletes' satisfaction. The sample included 28 university student-athletes who play team sports within a two-year university system in the Western United States. The dataset included Sport Motivation Scale (SMS-II) and Athlete Satisfaction Questionnaire (ASQ) instruments, which collected data within a single online system: Survey Hero. Due to COVID-19, the research study site was shut prematurely. Therefore, a low number of responses was collected from participants. A Kendall's tau-b correlational analysis showed significant evidence to accept the null hypothesis and conclude there was no association between intrinsic tb = 0.262, external tb = -0.012, identified tb = 0.114, introjected tb = 0.23, integrated tb = 0.068, and amotivated tb = 0.075 motivation and athletes' satisfaction (M = 14.89; SD = 4.59). A post hoc analysis was then performed on each research question and concluded that there is at least a 90.7% chance of committing a type II error. The results may not fit the general population across other states.

Keywords: *Athletes' satisfaction, motivational styles, self-determination theory*

INTRODUCTION

The purpose of this quantitative correlational study was to examine if and to what extent there is a correlation between athletes' motivational styles (intrinsic, external, identified, introjected, integrated, and amotivated) and the individual performance construct of athletes' satisfaction within a two-year university system in the Western United States. The motivation of athletes is a mental process that initiates athletic behaviors to enhance performance. Intrinsic and extrinsic motivators are two stimulators that stimulate performance (Radu & Făgăraş, 2014). Self-determination theory (SDT) was a commonly used approach for assessing human motivation, personality, and optimal functioning of athletes who collaboratively aim towards achieving a specific goal (Deci & Ryan, 1985). Sport psychology studies incorporated SDT with involvement in sport organizations (Deci & Ryan, 2012; Pelletier et al., 2013). The purpose of integrating SDT into sports psychology was to better understand sport engagement.

Although this research was valuable, this concept must be further investigated to draw general conclusions on how athletic satisfaction may be correlated by the correlation between athletes' motivation and satisfaction in team sports. The correlation between college athletes' motivations and their satisfaction with the chosen athletic activities was not previously fully researched, which

was addressed within this research design. For this reason, both the motivations of university student athletes and if athletes' satisfaction was impacted due to the correlation between the variables (satisfaction and motivation) was revealed. Further research using multi-sport samples was needed to achieve the generalizability of findings (Jowett, 2008, 2017; Teo et al., 2015). Consequently, the research study included a target population of university student athletes in Nevada involved in multi-team sports. This researcher examined if and to what extent there is a correlation between athletes' motivational styles and athletic satisfaction in a two-year university system.

The research study examining the correlation between university student-athlete motivational styles and their satisfaction is discussed in chapter one. The void in the literature, research questions, and hypotheses is also examined in chapter one, as they are pertinent to measuring athlete satisfaction and how it helped coaches, athletic directors, and athletic participants gain a better understanding of why an athlete continued to plan a sport (Contreira et al., 2019; Jowett, 2017). In addition, the assessment of assumptions, delimitations, and limitations will also be discussed within this chapter.

RELATED LITERATURE

Identification of the Gap

There was a gap in the literature regarding the void in the literature related to the examination that it is not known if and to what extent there is a correlation between athletes' motivational styles (intrinsic, external, identified, introjected, integrated, and amotivated) and the individual performance construct of athletes' satisfaction within a two-year university system. The purpose of this quantitative correlational study was to examine if and to what extent there is a correlation between athletes' motivational styles (intrinsic, external, identified, introjected, integrated, and amotivated) and the individual performance construct of athletes' satisfaction within a two-year university system in the Western United States. The motivation among athletes' satisfaction was examined through motivational approaches. Athletes were motivated through mental processes that initiated behavior and were driven by intrinsic and extrinsic motivators that encouraged performance (Radu & Făgăraş, 2014). This was just the surface of motivation among athletes, and the exploration of the individual performance construct of athletes' satisfaction through motivational approaches was yet to be fully examined.

This correlational research study examined intrinsic motivated individuals. Previous literature had indicated that individuals who demonstrated intrinsically motivated behaviors had commonly been viewed as being ego involved, where feelings of worth were dependent on how and what they do (Gagné & Deci, 2014). However, it was later concluded that intrinsic motivation was best accompanied by interest, personal goals, and positive attributes. In addition, ego involvement was motivated by internal self-worth by accomplishing a target activity (Gagné & Deci, 2014). On the other hand, extrinsic motivation was when an individual performs a task specifically for external rewards.

Previous researchers studied how environmental forces influence intrinsic and extrinsic motivation. Jowett (2017) and Contreira et al. (2019) studied the influence of intrinsic motives of personal needs and extrinsic motives of environmental forces on athletes' satisfaction. Athletes' satisfaction in sports was also further suggested by examining intrinsic motivation, types of autonomy, and controlled extrinsic motivation that would help with practical motivation approaches. The exploration of collegiate athletes' satisfaction through motivational approaches was not thoroughly examined (Contreira et al., 2019; Jowett, 2017). Therefore, this study had limited findings concerning collegiate athletes and their intrinsic and extrinsic motivation. Further research on motivation in collegiate sports was recommended, arguing that the study of athletes' satisfaction was important for generating knowledge to create and implement effective motivational strategies and improve performance. Therefore, the purpose of this quantitative correlational study was to examine if and to what extent there is a correlation between athletes' motivational styles and the individual performance construct of athlete satisfaction within a two-year university system in the Western United States may result in decreased athletic satisfaction.

A quantitative methodology helped to achieve the goal of the study. The influence of intrinsic motives (personal needs) and extrinsic motives (environmental forces) on athletes' satisfaction

was previously incorporated in earlier studies (Contreira et al., 2019; Jowett, 2017). In addition, further research on motivation was suggested concerning collegiate athletes due to limited findings.

The assessment of athletes' motivational styles (intrinsic, external, identified, introjected, integrated, and amotivated) aided in addressing the research gap by focusing on the big problem, which was it is not known if, and to what extent, there is a correlation between athletes' motivational styles (intrinsic, external, identified, introjected, integrated, and amotivated) and the individual performance construct of athletes' satisfaction within a two-year university system. The relevance of measuring athletes' satisfaction was to understand better why athletes continued to play a sport (Harrison et al., 2015). The assessment of athletic satisfaction within team sports aided in identifying if the relationship between variables correlated with the individual performance construct of athletes' satisfaction and motivation.

The theoretical framework for assessing athletes' preferred motivation within team sports was self-determination theory (SDT). In addition, SDT also measures satisfaction, which correlates to attrition rates (Harrison et al., 2015). SDT is an effective theoretical model that assesses intrinsic and extrinsic motivation and variables that might connect athletes' level of satisfaction with the sport (Readdy et al., 2014).

Background to the Problem

The theoretical framework for assessing the relationship between intrinsic and extrinsic athletes' motivational styles and athlete satisfaction is self-determination theory (SDT). SDT evaluates athletes' satisfaction that correlated with attrition rates (Harrison et al., 2015). Deci and Ryan (1985) introduced self-determination theory by explaining elite athletes' positive aspects of performance. SDT was concerned with intrinsic and extrinsic motivation tendencies and, therefore, was often utilized to study motivation in sports and education (Readdy et al., 2014). Self-determination theory was connected to the innate psychological need for satisfaction (Deci & Ryan, 1985). This affected individuals' perceptions of themselves.

The correlation between athletes' motivational styles and athletes' satisfaction was relevant in this study. The relevance of measuring satisfaction in athletes was to understand better why an athlete continues to play a sport (Harrison et al., 2015). The assessment of athletes' motivational preferences in team sports aided in identifying if athletic satisfaction was correlated by the correlation between athletes' motivational styles. Self-determination theory is an effective theoretical model that assesses intrinsic and extrinsic motivation variables (Readdy et al., 2014). The SDT model assessed motivation variables that associate with athletes' level of satisfaction with the sport.

In order to perform significant research, it was important for the researcher to have a thorough and rounded understanding of the literature related to the focus of the study. Therefore, it was necessary to conduct a literature review to address common threads and topics relevant to the current body of literature. A well-articulated, thorough literature review provided the foundation for a substantial, contributory dissertation. A literature review was a synthesis of what had been published on a topic by accredited scholars and researchers. It was not an expanded annotated bibliography or a summary of research articles related to the topic.

The literature review placed the research focus into context by analyzing and discussing the existing body of knowledge and effectively telling the reader everything that was known, or everything that has been discovered in research about that focus, and where the gaps and tensions in the research existed. As a piece of writing, the literature review must convey to the reader what knowledge, search terms, databases, and ideas have been established on a topic and build an argument supporting the research problem. This study was surveyed using Sport Motivation Scale (SMS-II) and Athletic Satisfaction Questionnaire (ASQ). The athletic Satisfaction Questionnaire measured the individual performance construct of athletes' satisfaction, whereas athletes' motivational preferences were measured by Sport Motivation Scale (SMS-II). The respondents responded to questions by marking their motivational preferences and their level of satisfaction on those scales, where the data were electronically inputted into the SPSS database for further data analysis.

Background of the Study

The significance of the correlation between athletes' satisfaction and their motivational strategies

was a continuous question about team sports. Although Deci and Ryan (1985) were the first to mention basic intrinsic and extrinsic forms of motivations, in which motivation and personality were linked to psychological needs for satisfaction and self-determination theory, it was not until research by Frederick and Morrison (1999) that the concept of motivation was applied to athletes. In this research, the primary focus was on collegiate athletes' motivational styles and their correlations with decision-making and personality (Amorose & Horn, 2000; Barkoukis et al., 2008). Other early researchers focused on self-determination and motivation in athletes based on extrinsic and intrinsic factors.

Jowett (2017) and Contreira et al. (2019) conducted studies focusing on the effect of intrinsic and extrinsic motivations on satisfaction. Intrinsic motivation pertained to the internal satisfaction of performing a particular activity, where individuals enjoyed learning a new skill for achievement and personal growth (Deci & Ryan, 1985). Extrinsic motivation referred to satisfaction when performing an activity, where rewards of money and recognition stimulated an individual's behavior. Jowett (2017) and Contreira et al. (2019) found that coach and athlete correlation correlated with coaches' satisfaction and athletes' performance when playing sports.

In addition, the Sport Motivation Scale (SMS-II) was incorporated into sports to assess motivation in fencers (Radu & Făgăraş, 2014). The study concluded that women scored high in intrinsic motivation, and males scored high in intrinsic and extrinsic motivation (Molinero et al., 2006). Further studies noted the significance of sports relationships between coaches and peers involved in motivation through the continuation of participation.

Furthermore, the correlation between the coach-and-athlete relationship on athletes' satisfaction with their coaches' intrinsic and extrinsic motivation approaches was explicitly studied. The study found that intrinsic motivation was essential to athletes and their satisfaction. The coach-athlete relationship (the degree to which the coach was satisfied with their relationship with athletes) encompassed coaches' satisfaction and athletes' performance (Contreira et al., 2019; Jowett, 2017). In this case, SDT represented the athletes' satisfaction with the intrinsic motivation approach, and it reactively consisted of desirable athletic performance. Further research on collegiate athletes and coach motivation was suggested based on limited findings of the correlation between intrinsic and extrinsic athlete motivation and satisfaction (Contreira et al., 2019; Jowett, 2017). The examination of if and to what extent there is a correlation between athletes' motivational styles (intrinsic, external, identified, introjected, integrated, and amotivated) and the individual performance construct of athletes' satisfaction was addressed within this study. If a disparity existed between university student athletes' motivation and their satisfaction, then there was an effect on their overall satisfaction while participating in team sports. The research gap was addressed by the study that it was not known if and to what extent there is a correlation between athletes' motivational styles (intrinsic, external, identified, introjected, integrated, and amotivated) and the individual performance construct of athletes' satisfaction within a two-year university system. The examination of athletes' satisfaction was addressed in the research gap and void in the literature concerning the correlation between athletes' motivational styles and the individual construct of athlete satisfaction within a two-year university system in the Western United States. The gap in research created an objective of identifying preferred intrinsic/extrinsic motivators correlated to satisfaction in addition to contributing to the body of knowledge.

Problem Statement

Prior to this study, it was not known if and to what extent there is a correlation between athletes' motivational styles (intrinsic, external, identified, introjected, integrated, and amotivated) and the individual performance construct of athletes' satisfaction within a two-year university system. The gap in literature regarded the correlation between college athletes' motivations and their satisfaction with participation in team sports. The void in literature examined athletes' satisfaction. It addressed the research gap concerning to what extent there is a correlation between athletes' motivational styles (intrinsic, external, identified, introjected, integrated, and amotivated) and the individual performance construct of athletes' satisfaction within

a two-year university system in the Western United States (Contreira et al., 2019; Jowett, 2017). The examination of university student athletes' satisfaction through motivational approaches of athletes had yet to be thoroughly examined. Therefore, the general population correlated by this study's problem included student athletes. Athletes' motivation and their correlation with satisfaction was examined, enhancing athletic performance (Contreira et al., 2019; Jowett, 2017). Various individual and team sports were further suggested to examine intrinsic motivation, types of autonomy (e.g., experiencing activities as exciting and spontaneously satisfying), and controlled extrinsic motivation (e.g., reflects feelings of external control and pressure in behaving in specific ways) that would help with compelling motivation approaches.

Athletes' motivational style was an essential factor in this research study. Motivation was defined as a means to be energized to complete a task where a combination of direction, energy, and persistence were all aimed toward achieving a specific goal (Petri & Govern, 2013). Therefore, collegiate athletes performed poorly if their intrinsic and extrinsic motivational needs were not being met. Typically, coaches' poor or less-than-preferred motivational style may have resulted in student-athlete dissatisfaction with the sport.

In that case, the extent of the correlation between intrinsic motives (personal needs) and extrinsic motives (environmental forces) on athletes' satisfaction was to be researched, as suggested by Jowett (2017) and Contreira et al. (2019). This author suggested focusing on motivation in collegiate sports, arguing that the study of athletes' satisfaction was essential for generating knowledge to create and implement effective motivational strategies and improve performance. In addition, the author suggested further research on collegiate athletes based on limited findings (Contreira et al., 2019; Jowett, 2017). This study examined athletes' motivational styles and their satisfaction with playing team sports.

The study of athletes' satisfaction with their motivational strategies was important for generating knowledge of effective motivational techniques that were helpful for long-term goal achievement to enhance the satisfaction of athletic players. Motivational strategies provided valuable information to athletic directors and predicted potential dropouts (Contreira et al., 2019; Jowett, 2017). The new knowledge acquired through this research design was helpful in adapting coaching styles to fit their players' motivations better. Therefore, the goal was to increase the players' satisfaction to improve athletic performance and reduce attrition in collegiate team sports.

Purpose of the Study

The purpose of this quantitative correlational study was to examine if, and to what extent, there is a correlation between athletes' motivational styles (intrinsic, external, identified, introjected, integrated, and amotivated) and athletes' satisfaction within a two-year university system in the Western United States. Previous researchers studied athletes' satisfaction with intrinsic and extrinsic motivation according to the interpersonal feelings of thoughts and behaviors of the coach-and-athlete relationship (Contreira et al., 2019; Jowett, 2017). It was found that intrinsic motivation was important to athletes and their satisfaction, where the coaches' satisfaction was correlated with athletes' performance. The researchers recommended further research in this area due to limited findings (Contreira et al., 2019; Jowett, 2017). This research study determined whether there is a correlation between the athletes' motivational styles and their effect on athletic satisfaction. A disparity in the correlation between motivation styles and athletes' satisfaction indicated no correlation between the variables.

The disparity was identified by the low number of respondents by the athlete participants. The review of athletes' satisfaction entailed a significant difference in satisfaction scores between athletes' motivation that matched their athletic satisfaction. The correlation between university student athletes' motivation and their individual performance construct of satisfaction with the chosen athletic activities was not thoroughly researched and addressed (Contreira et al., 2019; Jowett, 2017). Results of the study were provided. The target population included student athletes in the Western United States that participated in team sports at a two-year university, and the analyses were administered using a correlational design.

The correlational design was appropriate for the research of satisfaction of athletes.

The correlational research design was to test the assumptions and assess the extent of the correlation between athletes' satisfaction and their motivation (Royse et al., 2015). The correlational design was used to discover the correlation of the individual performance construct of athletes' satisfaction with their motivation. Athletes' satisfaction and their motivational styles were the variables for this study. The data included in the test were (a) *intrinsic*, (b) *external*, (c) *identified*, (d) *introjected*, (e) *integrated*, and (f) *amotivated* motivational responses of university student athletes and their satisfaction. The Athletic Satisfaction Questionnaire (ASQ) was used to assess the degree of the individual performance construct of athletic satisfaction (Riemer & Chelladurai, 1998). In addition, SMS-II assessed athletes' motivational preferences. The evaluation of this research suggested whether there was a correlation between an athlete's motivation and relative to correlate athletes' satisfaction in team sports. Data were collected using ASQ and SMS-II instruments to determine the extent of the correlation between athletes' motivational styles that correlates with athletic satisfaction.

Coaches may use the findings from the research results to adjust their coaching style to better match their players' motivations and thus increase the athlete's satisfaction, enhance their performance, and prevent attrition in college team sports. However, the research study was conducted with a convenience sample of collegiate athletes who played multi-team sports and were recruited from a college within the western region of the United States. The convenience sample was chosen due to the opportunity of drawing a direct sample from a specific population. The researcher used convenience sampling to quickly gather data from the population (Davis et al., 2014). The importance of this research design was to examine if and to what extent there is a correlation between athletes' motivational styles and the individual performance construct of athletes' satisfaction within a two-year university system.

RESEARCH QUESTIONS AND HYPOTHESES

Research questions were developed by identifying gaps in previous research that were problematic or unknown and still need to be addressed. The gap in existing research means that assumptions were yet to be fully challenged and were problematic and unknown (Alvesson & Sandberg, 2011). Research questions were generated from the identified gap where the assumptions were tested and added to the existing body of knowledge in research. The study's findings addressed research questions and determined whether there was a correlation between athletes' motivational styles and their effect on athletic satisfaction in a two-year university system in the Western United States. The assessment of the correlation between athletes' motivations and their satisfaction with the chosen athletic activities was revealed. Athletes' satisfaction was not thoroughly researched (Contreira et al., 2019; Jowett, 2017). Athletes' satisfaction was addressed in this study, along with addressing the research questions and hypotheses.

The following research questions and corresponding hypotheses will guide this quantitative correlational study:

RQ1: To what extent is there a correlation between intrinsic athletes' motivational style (*intrinsic*) and the individual performance construct of athlete satisfaction within a two-year university system?

$H1_0$: There is no correlation between intrinsic athletes' motivational style (*intrinsic*), as measured by SMS-II, and the individual performance construct of athletes' satisfaction, as measured by ASQ, within a two-year university system.

$H1_a$: There is a correlation between intrinsic athletes' motivational style (*intrinsic*), as measured by SMS-II, and the individual performance construct of athletes' satisfaction, as measured by ASQ, within a two-year university system.

RQ2: To what extent is there a correlation between external athletes' motivational style (*external*) and the individual performance construct of athlete satisfaction within a two-year university system?

$H1_0$: There is no correlation between external athletes' motivational style (*external*), as measured by SMS-II, and the individual performance construct of athletes' satisfaction, as measured by ASQ, within a two-year university system.

$H1_a$: There is a correlation between external athletes' motivational style (*external*), as measured by SMS-II, and the individual performance construct of athletes' satisfaction, as measured by

ASQ, within a two-year university system.

RQ3: To what extent is there a correlation between identified athletes' motivational style (*identified*) and the individual performance construct of athlete satisfaction within a two-year university system?

$H1_0$: There is no correlation between identified athletes' motivational style (*identified*), as measured by SMS-II, and the individual performance construct of athletes' satisfaction, as measured by ASQ, within a two-year university system.

$H1_a$: There is a correlation between identified athletes' motivational style (*identified*), as measured by SMS-II, and the individual performance construct of athletes' satisfaction, as measured by ASQ, within a two-year university system.

RQ4: To what extent is there a correlation between introjected athletes' motivational style (*introjected*) and the individual performance construct of athlete satisfaction within a two-year university system?

$H1_0$: There is no correlation between introjected athletes' motivational style (*introjected*), as measured by SMS-II, and the individual performance construct of athletes' satisfaction, as measured by ASQ, within a two-year university system.

H1a: There is a correlation between introjected athletes' motivational style (*introjected*), as measured by SMS-II, and the individual performance construct of athletes' satisfaction, as measured by ASQ, within a two-year university system.

RQ5: To what extent is there a correlation between integrated athletes' motivational style (*integrated*) and the individual performance construct of athlete satisfaction within a two-year university system?

$H1_0$: There is no correlation between integrated athletes' motivational style (*integrated*), as measured by SMS-II, and the individual performance construct of athletes' satisfaction, as measured by ASQ, within a two-year university system.

$H1_a$: There is a correlation between integrated athletes' motivational style (*integrated*), as measured by SMS-II, and the individual performance construct of athletes' satisfaction, as measured by ASQ, within a two-year university system.

RQ6: To what extent is there a correlation between amotivated athletes' motivational style (*amotivated*) and the individual performance construct of athlete satisfaction within a two-year university system?

$H1_0$: There is no correlation between amotivated athletes' motivational style (*amotivated*), as measured by SMS-II, and the individual performance construct of athletes' satisfaction, as measured by ASQ, within a two-year university system.

$H1_a$: There is a correlation between amotivated athletes' motivational style (*amotivated*), as measured by SMS-II, and the individual performance construct of athletes' satisfaction, as measured by ASQ, within a two-year university system.

HYPOTHESES

Prior to this study, it was not known if, and to what extent, there is a correlation between athletes' motivational styles (intrinsic, external, identified, introjected, integrated, and amotivated) and the individual performance construct of athletes' satisfaction within a two-year university system. The assessment of university student athletes aided in addressing the gap in research by determining if athletic satisfaction was correlated by the correlation between athletes' motivational styles and their satisfaction. The analyses were conducted using a correlational design where the decision to collect data about athletes' satisfaction and their motivational style were the variables for this study. The sample from the population consisted of data that evaluated (a) intrinsic, (b) external, (c) identified, (d) introjected, (e) integrated, and (f) amotivated motivational responses of university student athletes and their satisfaction. The SMS-II will assess athletes' motivational styles, and ASQ will evaluate the degree of the individual performance construct of athletic satisfaction. The researcher examined if and to what extent there is a correlation between athletes' motivational styles and the individual performance construct of athletes' satisfaction within a two-year university system. A two-year university was chosen for this research study.

Self-determination theory

Self-determination theory (SDT) was created in connection to the innate psychological need for satisfaction SDT. SDT can support individuals' perceptions of themselves (Deci & Ryan, 1985). SDT was introduced for elite athletes to reflect positive aspects of performance. SDT was concerned

with intrinsic and extrinsic motivation tendencies to behave effectively and achieve a specified goal (Deci & Ryan, 1985). SDT was often used to study motivation in sports and education and was a key concept connected to psychological needs (Readdy et al., 2014). Concepts of self-determination were further extended through intrinsic and extrinsic motivation (Bell, 2010). SDT recognized intrinsic motives as a desire for knowledge and stimulation, whereas extrinsic motivation focused on social pressures and performance outcomes (Assor et al., 2009; Barkoukis et al., 2008). SDT was used in this research study to advance how university student athletes' motivational styles correlated with athlete satisfaction with the sport. SDT was used in the survey instrument for student-athlete participants to self-analyze their level of satisfaction with the sport because of their motivational styles.

DATA ANALYSIS

Data analysis reviewed the data collected from this research study. Data analysis is a systematic procedure of evaluating gathered information that statistically reviews and describes data (Mertler, 2018). The purpose of this quantitative correlational study was to examine if and to what extent there was a correlation between athletes' motivational styles (intrinsic, external, identified, introjected, integrated, and amotivated) and athletes' satisfaction within a two-year university system in the Western United States. The participants numbered 28 university student athletes who participated in the questionnaires, which relied on the Sport Motivation Scale (SMS-II) and Athletic Satisfaction Questionnaire (ASQ). The SMS-II questionnaire evaluated the athletes' motivational preferences (Pelletier et al., 2013). In addition, the ASQ measured athletes' satisfaction with playing a team sport. The questionnaires were developed following the ethical guidelines for both participants. Ethical outlines were developed.

The primary data needed to answer the questions for this study included measures of the participants' motivations, as well as measures of their satisfaction with their athletic activities. All data were obtained from a convenience sample of university student athletes who played team sports with a two-year university system within the Western region of the United States. The researcher administered an online survey using Survey Hero and two questionnaires (SMS –II and ASQ). Conducting the survey in an online setting allowed a number of participants to respond from various socioeconomic backgrounds and experiences (Pelletier et al., 2013). This helped improve the reliability of the study in that the answers provided by the participants allowed for a rounded understanding of athletes' perceptions.

The researcher obtained site authorization from the IRB office at a college within a two-year university system and contacted each college's athletic director to recruit athletes for this study. Informed consent was obtained from athletes, and participants had agreed to a voluntary agreement to participate in the study. Participants were only accounted for one time during the duration of the study, and the data were placed separately into (a) intrinsic, (b) external, (c) identified, (d) introjected, (e) integrated, and (f) amotivated.

Data were collected from the target population of university student athletes in the Western United States. All analyses were performed using the SPSS software. The researcher provided descriptive data for the sample demographics and the variables of interest in this study. To compute descriptive statistics, the researcher ran frequencies. Because the data collected for all variables was interval, the researcher used a correlational design. The level of statistical significance was alpha .008.

RESULTS

The results section demonstrates the testing of assumptions and research questions and associates the strength of the correlation between athletes' motivation and their satisfaction. A quantitative correlational analysis was chosen as the research methodology for this study. The determination of the correlation between the athletes' motivational style and the individual performance construct of satisfaction score was sought through a quantitative analysis of the variables. A Kendall's correlational analysis was performed to help establish the existence of a correlation between the variables. The following Kendall's tau-b tables and corresponding variables guide this quantitative correlational study.

The study consisted of 28 student athletes selected from a two-year university. Athletes' satisfaction and their motivational style were the variables for this study. The data from the

population included in Spearman's correlation coefficient was (a) intrinsic, (b) external, (c) identified, (d) introjected, (e) integrated, and (f) amotivated motivational responses of university student athletes and their individual performance construct of satisfaction. The ASQ was used to assess the degree of satisfaction (Contreira et al., 2019; Jowett, 2008, 2017; Readdy et al., 2014).

The researcher used Kendall's tau-b correlational design to evaluate the data collected from the questionnaires. The data were presented to university student athletes of intrinsic, external, identified, introjected, integrated, and amotivated motivational responses and their individual performance construct of satisfaction. The power analysis and standard significance determined the sample size. The power analysis used the following parameters: alpha = .008, effect size = 0.3 (because the researcher is interested in whether satisfaction allows for a significant positive or negative correlation between athletes' satisfaction and motivation, respectively), and *power* = 0.8. The data collected was evaluated and reported non-statistically significant results. The study was underpowered by a small sample size. There is not enough difference between motivation and athletes' satisfaction detected and failure to report a significant difference between the variables.

A correlational output of the results was presented in a matrix. The output presented the Kendall's tau-b correlations, significance value, and sample size. The correlation was not significant at the .008 level (2-tailed) that tested if there was a difference in satisfaction scores between university student athletes' motivational styles and their athletic satisfaction. The data included in the test were (a) intrinsic, (b) external, (c) identified, (d) introjected, (e) integrated, and (f) amotivated motivational responses of university student athletes and their satisfaction. A post hoc analysis was then performed on each research question due to the acceptance of the null hypothesis. This research addressed data analysis and results.

Analysis of research questions

Six research questions were developed and used to guide this research study. Each research question and hypothesis were tested separately using Kendall's tau-b. Data were collected and analyzed from 28 respondents for this study. The data were analyzed using SPSS. The research questions and hypotheses are reported as follows.

RESEARCH QUESTION 1

RQ1: To what extent is there a correlation between intrinsic athletes' motivational style (*intrinsic*) and the individual performance construct of athletes' satisfaction within a two-year university system?

$H1_0$: There is no correlation between intrinsic athletes' motivational style (*intrinsic*), as measured by SMS-II, and the individual performance construct of athletes' satisfaction, as measured by ASQ, within a two-year university system.

$H1_a$: There is a correlation between intrinsic athletes' motivational style (*intrinsic*), as measured by SMS-II, and the individual performance construct of athletes' satisfaction, as measured by ASQ, within a two-year university system.

The table below presents the findings of the Kendall's tau-b correlational test for research question 1. Preliminary analysis showed that there were no violations in the assumptions of normality, linearity, and homoscedasticity. There was significant evidence to accept the null hypothesis and conclude that there was no correlation between intrinsic motivation (M = 53.78, SD = 8.94) and satisfaction (M = 14.89, SD = 4.59), t_b = 0.262, p = 0.073. Higher levels of intrinsic motivation were not associated with higher levels of athlete satisfaction. The statistical significance level of confidence concluded that the results would not consistently fit the general population of university student athletes across other states. The limited selection of the sample from the population provided less than adequate estimation of the desired results.

Table 1. Correlations Between Intrinsic Motivation and Satisfaction Levels

Correlations[a]			
			Intrinsic
Kendall's tau_b	Satisfaction	Correlation Coefficient	.262
		Sig. (2-tailed)	.073

Note: Correlation is not significant at the .008 level (2-tailed).

[a] Listwise N = 28

A post hoc G*Power analysis showed an actual power for intrinsic motivation of .092. The post hoc analysis included two tails, an effect size of 0.262,

α err prob .008, and a total sample size of 28. The post hoc power analysis concluded that there is a 90.7% chance of committing a type II error. There is a high probability of reaching an erroneous conclusion of accepting a false null hypothesis due to the small sample size.

RESEARCH QUESTION 2

RQ2: To what extent is there a correlation between external athletes' motivational style (*external*) and the individual performance construct of athletes' satisfaction within a two-year university system?

$H1_0$: There is no correlation between external athletes' motivational style (*external*), as measured by SMS-II, and the individual performance construct of athletes' satisfaction, as measured by ASQ, within a two-year university system.

$H1_a$: There is a correlation between external athletes' motivational style (*external*), as measured by SMS-II, and the individual performance construct of athletes' satisfaction, as measured by ASQ, within a two-year university system.

The table below presents the findings of the Kendall's tau-b correlational test for research question 2. A Kendall's tau-b correlation analysis was conducted to evaluate the null hypothesis that there is no correlation between external athletes' motivational style (*external*), as measured by SMS-II, and the individual performance construct of athletes' satisfaction, as measured by ASQ, at the two-year university level in the Western United States (N = 28). Preliminary analysis was inconclusive about violations in the assumptions of normality, linearity, and homoscedasticity. There was statistically significant evidence to accept the null hypothesis and conclude that there was no association between external motivation (M = -36.07, SD = 8.38) and satisfaction (M = 14.89, SD = 4.59), t_b = -0.012 p = 0.935. The statistical significance level of confidence concluded that the results would not be consistent across the general population of university student athletes. The limited selection of the sample from the population provided less than adequate estimation of the desired results.

Table 2. Correlations Between External Motivation and Satisfaction Levels

Correlations[a]			
			External
Kendall's tau_b	Satisfaction	Correlation Coefficient	-.012
		Sig. (2-tailed)	.935

Note: Correlation is not significant at the .008 level (2-tailed).

[a]Listwise N = 28

A post hoc G*Power analysis showed an actual power for external motivation of .008. The post hoc analysis included two tails, an effect size of –0.012, α err prob .008, and a total sample size of 28. The post hoc power analysis concluded that there is a 99.2% chance of committing a type II error. There is a high probability of reaching an erroneous conclusion of accepting a false null hypothesis due to the small sample size.

RESEARCH QUESTION 3

RQ3: To what extent is there a correlation between identified athletes' motivational style (*identified*) and the individual performance construct of athletes' satisfaction within a two-year university system?

$H1_0$: There is no correlation between identified athletes' motivational style (*identified*), as measured by SMS-II, and the individual performance construct of athletes' satisfaction, as measured by ASQ, within a two-year university system.

$H1_a$: There is a correlation between identified athletes' motivational style (*identified*), as measured by SMS-II, and the individual performance construct of athletes' satisfaction, as measured by ASQ, within a two-year university system.

The table below presents the findings of the Kendall's tau-b correlational test for research question 3. A Kendall's tau-b correlation was conducted to evaluate the null hypothesis that there is no correlation between identified athletes' motivational styles, as measured by SMS-II, and athletes' satisfaction, as measured by ASQ, at the two-year university level in the Western United States (N = 28). Preliminary analysis was inconclusive about violations in the assumptions of normality, linearity, and homoscedasticity. There was significant evidence to accept the null hypothesis and conclude that there was no association between identified motivation (M = 16.35, SD = 4.11) and satisfaction (M = 14.89, SD = 4.59), t_b = 0.114, p = 0.445. The statistical significance level of confidence concluded that the results would be consistent across the general population of university student athletes. The limited selection of the sample from the population provided less than adequate estimation of the desired results.

Table 3. Correlations Between Identified Motivation and Satisfaction Levels

Correlations[a]			
			Identified
Kendall's tau_b	Satisfaction	Correlation Coefficient	.114
		Sig. (2-tailed)	.445

Note. Correlation is not significant at the .008 level (2-tailed).

[a] Listwise N = 28

A post hoc G*Power analysis showed an actual power for identified motivation of 0.018. The post hoc analysis included two tails, an effect size of 0.114, α err prob .008, and a total sample size of 28. The post hoc power analysis concluded that there is a 98.1% chance of committing a type II error. There is a high probability of reaching an erroneous conclusion of accepting a false null hypothesis due to the small sample size.

RESEARCH QUESTION 4

RQ4: To what extent is there a correlation between introjected athletes' motivational style (*introjected*) and the individual performance construct of athletes' satisfaction within a two-year university system?

$H1_0$: There is no correlation between introjected athletes' motivational style (*introjected*), as measured by SMS-II, and the individual performance construct of athletes' satisfaction, as measured by ASQ, within a two-year university system.

$H1_a$: There is a correlation between introjected athletes' motivational style (*introjected*), as measured by SMS-II, and the individual performance construct of athletes' satisfaction, as measured by ASQ, within a two-year university system.

The table below presents the findings of the Kendall's tau-b correlational test for research question 4. A Kendall's tau-b correlation was conducted to evaluate the null hypothesis that there is no correlation between introjected athletes' motivational styles, as measured by SMS-II, and the individual performance construct of athletes' satisfaction, as measured by ASQ, at the two-year university level in the Western United States ($N = 28$). Preliminary analysis was inconclusive about violations in the assumptions of normality, linearity, and homoscedasticity. There was significant evidence to accept the null hypothesis and conclude that there was no association between introjected motivation ($M = 12.07$, $SD = 4.44$) and satisfaction ($M = 14.89$, $SD = 4.59$), $t_b = 0.23$, $p = 0.872$. The statistical significance level of confidence concluded that the results would be consistent across the general population of university student athletes. The limited selection of the sample from the population provided less than adequate estimation of the desired results.

Table 4 Correlations Between Introjected Motivation and Satisfaction Levels

Correlations[a]			
			External
Kendall's tau_b	Satisfaction	Correlation Coefficient	.023
		Sig. (2-tailed)	.872

Note. Correlation is not significant at the .008 level (2-tailed).

a Listwise N = 28

A post hoc G*Power analysis showed an actual power for introjected motivation of 0.008. The post hoc analysis included two tails, an effect size of 0.023, α err prob .008, and a total sample size of 28. The post hoc power analysis concluded that there is a 99.2% chance of committing a type II error. There is a high probability of reaching an erroneous conclusion of accepting a false null hypothesis due to the small sample size.

RESEARCH QUESTION 5

RQ5: To what extent is there a correlation between integrated athletes' motivational style (*integrated*) and the individual performance construct of athletes' satisfaction within a two-year university system?

$H1_0$: There is no correlation between intrinsic athletes' motivational style (*integrated*), as measured by SMS-II, and the individual performance construct of athletes' satisfaction, as measured by ASQ, within a two-year university system.

$H1_a$: There is a correlation between integrated athletes' motivational style (*integrated*), as measured by SMS-II, and the individual performance construct of athletes' satisfaction, as measured by ASQ, within a two-year university system.

The table below presents the findings of the Kendall's tau-b correlational test for research question 5. A Kendall's tau-b correlation was conducted to evaluate the null hypothesis that there

is no correlation between integrated athletes' motivational styles, as measured by SMS-II, and the individual performance construct of athletes' satisfaction, as measured by ASQ, at the two-year university level in the Western United States (N = 28). Preliminary analysis was inconclusive about violations in the assumptions of normality, linearity, and homoscedasticity. There was significant evidence to accept the null hypothesis and conclude that there was no association between integrated motivation (M = 32.71, SD = 8.33) and satisfaction (M = 14.89, SD = 4.59), t_b = 0.068, p = 0.639. The statistical significance level of confidence concluded that the results would be consistent across the general population of university student athletes.

Table 5. Correlations Between Integrated Motivation and Satisfaction Levels

Correlations[a]			
			External
Kendall's tau_b	Satisfaction	Correlation Coefficient	.068
		Sig. (2-tailed)	.639

Note. Correlation is not significant at the .008 level (2-tailed).

a Listwise N = 28

A post hoc G*Power analysis showed an actual power for integrated motivation of 0.011. The post hoc analysis included two tails, an effect size of 0.068, an α err prob .008, and a total sample size of 28. The post hoc power analysis concluded that there is a 98.8% chance of committing a type II error. There is a high probability of reaching an erroneous conclusion of accepting a false null hypothesis due to the small sample size.

RESEARCH QUESTION 6

RQ6: To what extent is there a correlation between amotivated athletes' motivational style (*amotivated*) and the individual performance construct of athletes' satisfaction within a two-year university system?

$H1_0$: There is no correlation between amotivated athletes' motivational style (*amotivated*), as measured by SMS-II, and the individual performance construct of athletes' satisfaction, as measured by ASQ, within a two-year university system.

$H1_a$: There is a correlation between amotivated athletes' motivational style (*amotivated*), as measured by SMS-II, and the individual performance construct of athletes' satisfaction, as measured by ASQ, within a two-year university system.

The table below presents the findings of the Kendall's tau-b correlational test for research question 6. A Kendall's tau-b correlation was conducted to evaluate the null hypothesis that there is no correlation between amotivated athletes' motivational styles, as measured by SMS-II, and the individual performance construct of athletes' satisfaction, as measured by ASQ, at the two-year university level in the Western United States (N = 28). Preliminary analysis was inconclusive about violations in the assumptions of normality, linearity, and homoscedasticity. There was significant evidence to accept the null hypothesis and conclude that there was no association between amotivated motivation (M = -52.39, SD = 11.474) and satisfaction (M = 14.89, SD = 4.59), t_b = 0.075, p = 0.610. The statistical significance level of confidence concluded that the results would not be consistent across the general population of university student athletes due to the small sample size.

Table 6. Correlations Between Amotivated Motivation and Satisfaction Levels

Correlations[a]			
			External
Kendall's tau_b	Satisfaction	Correlation Coefficient	.075
		Sig. (2-tailed)	.610

Note. Correlation is not significant at the .008 level (2-tailed).

a Listwise N = 28

A post hoc G*Power analysis showed an actual power for amotivated motivation of 0.012. The post hoc analysis included two tails, an effect size of 0.075, α err prob .008, and a total sample size of 28. The post hoc power analysis concluded that there is a 98.8% chance of committing a type II error. There is a high probability of reaching an erroneous conclusion of accepting a false null hypothesis due to the small sample size.

SUMMARY

The primary objective of this chapter was to assess the athlete's overall satisfaction by examining if there is a correlation between athletes' motivational styles and their individual performance construct of satisfaction. A quantitative

methodology was used to collect data to provide information to coaches and athletic directors to reduce athletic dropout and increase athletic performance in university student athletes (Sari et al., 2015). Contreira et al. (2019) and Jowett (2017) studied athletes' satisfaction and motivation. It was recommended for further research in this area. This study met Contreira et al. (2019) and Jowett's (2017) recommendations by examining if there is a correlation between athletes' motivation style and their satisfaction.

The study consisted of 28 student athletes selected from a two-year university. Athletes' satisfaction and their motivational style were the variables for this study. The data from the population included in Kendall's tau-b were (a) intrinsic motivational responses, (b) external motivational responses, (c) identified motivational responses, (d) introjected motivational responses, (e) integrated motivational responses, and (f) amotivated motivational responses of university student athletes and their satisfaction. The ASQ was used to assess the degree of individual performance construct of athletic satisfaction (Contreira et al., 2019; Jowett, 2017; Readdy et al., 2014). The research questions include, "To what extent is there a correlation between intrinsic athletes' motivational style (intrinsic) and the individual performance construct of athletes' satisfaction within a two-year university system? To what extent is there a correlation between external athletes' motivational style (*external*) and the individual performance construct of athletes' satisfaction within a two-year university system? To what extent is there a correlation between identified athletes' motivational style (*identified*) and the individual performance construct of athletes' satisfaction within a two-year university system? To what extent is there a correlation between introjected athletes' motivational style (*introjected*) and the individual performance construct of athletes' satisfaction within a two-year university system? To what extent is there a correlation between integrated athletes' motivational style (*integrated*) and the individual performance construct of athletes' satisfaction within a two-year university system? To what extent is there a correlation between amotivated athletes' motivational style (*amotivated*) and the individual performance construct of athletes' satisfaction within a two-year university system?" These research questions aligned with the problem statement, which is that it is not known if and to what extent there is a correlation between athletes' motivational styles (intrinsic, external, identified, introjected, integrated, and amotivated) and the individual performance construct of athletes' satisfaction within a two-year university system.

The researcher used a correlational design to evaluate the data collected from the questionnaires. A sample of 28 was presented in the data. The data presented university student athletes with intrinsic, external, identified, introjected, integrated, and amotivated motivational responses and satisfaction. The power analysis and standard significance determined the sample size. The power analysis used the following parameters: alpha = .008, effect size = 0.3 (because the researcher is interested in whether satisfaction allows for a significant positive or negative correlation between athletes' satisfaction and motivation, respectively), and power = 0.8. The data collected were evaluated and demonstrated results and an indication of significance. This research study addressed data analysis and results.

The researcher initially sought to use a Pearson's correlation. The sample size was too small; therefore, the assumptions were not met. A Kendall's correlation was then performed through SPSS for Windows. The researcher performed a Kendall's tau-b correlation to increase the confidence of the correlation results.

Although the three correlation approaches would likely lead to similar outcomes, the researcher applied the Kendall's tau-b with the intention of using it as a confirmation for the Pearson's and Spearman's rank correlation analysis; additionally, the Kendall's tau-b analysis helped establish the ordinal association between the two variables (Shih & Fay, 2017). The following variable associations between athletes' motivation and their satisfaction levels were addressed in accordance with the acceptance of the null hypotheses.

Intrinsic motivation

Results from the Kendall's tau-b analysis performed to evaluate the null hypothesis associated with research question 1 (RQ1) did not indicate a statistically significant association between intrinsic motivation (M = 10.91, SD = 9.20) and the

individual performance construct of satisfaction (*M* =, *SD* =), t_b = 0.262, $p < 0.073$. An analysis of the association between intrinsic motivation and athlete satisfaction levels suggested a weak correlation between the variables. Therefore, there is evidence to accept the null hypothesis and reject the alternative hypothesis. This invalidated hypothesis H_1, which stated that there is a correlation between intrinsic athletes' motivational style (intrinsic), as measured by SMS-II, and the individual performance construct of athletes' satisfaction, as measured by ASQ, within a two-year university system. Further examination of the association suggested that intrinsic motivation affects about 37.82% of the athlete's feelings of satisfaction.

External motivation

Results from the Kendall's tau-b analysis performed to evaluate the null hypothesis associated with research question 2 (RQ2) did not indicate a statistically significant association between external motivation (*M* = 2.75, *SD* = 3.18) and satisfaction (*M* = 134.57, *SD* = 139.98), t_b = -0.012, $p < 0.935$. An analysis of the association between external motivation and athlete satisfaction levels suggested that there was a weak positive correlation between the variables. Therefore, there is evidence to accept the null hypothesis and reject the alternative hypothesis. This invalidates the alternative hypothesis H_1, which stated that there is a correlation between external athletes' motivational style (*external*), as measured by SMS-II, and the individual performance construct of athletes' satisfaction, as measured by ASQ, within a two-year university system. However, further examination of the association suggests that external motivation affects about 24% of the athlete's feelings of satisfaction. That association appears weak. Considering the small sample used for this study, it is possible that the positive correlation was a consequence of a type II error. The researcher cautions that the statistical power for this analysis was low.

Identified motivation

Results from the Kendall's tau-b analysis performed to evaluate the null hypothesis associated with research question 3 (RQ3) did not indicate a statistically significant association between identified motivation (*M* = 9.66, SD = 8.61) and satisfaction (*M* = 134.57, SD = 139.98), t_b = 0.114, $p < 0.445$. An analysis of the association between identified motivation and athlete satisfaction levels suggested that there was no strong positive correlation between the variables. Therefore, there was evidence to accept the null hypothesis and reject the alternative hypothesis. This invalidated the alternative hypothesis H_1, which stated that there is a correlation between external athletes' motivational style (*identified*), as measured by SMS-II, and the individual performance construct of athletes' satisfaction, as measured by ASQ, within a two-year university system. Nonparametric correlation analysis was applied because the variables were ordinal but had outliers. However, further examination of the association suggests that identified motivation affects about 37.2% of the athlete's feelings of satisfaction.

Introjected motivation

Results from the Kendall's tau-b analysis performed to evaluate the null hypothesis associated with research question 4 (RQ4) did not indicate a statistically significant association between introjected motivation (*M* = 6.86, *SD* = 6.68) and satisfaction (*M* = 134.57, *SD* = 139.98), t_b = -.023, $p < 0.872$. An analysis of the association between introjected motivation and athlete satisfaction levels suggested a correlation between the variables. Therefore, there was evidence to accept the null hypothesis and reject the alternative hypothesis. This invalidated the alternative hypothesis H_1, which stated that there is a correlation between external athletes' motivational style (*introjected*), as measured by SMS-II, and the individual performance construct of athletes' satisfaction, as measured by ASQ, within a two-year university system. Nonparametric correlation analysis was applied because the variable was ordinal but had outliers. However, further examination of the association suggested that introjected motivation affects about 30.6% of the athlete's feelings of satisfaction.

Integrated motivation

Results from the Kendall's tau-b analysis performed to evaluate the null hypothesis associated with research question 5 (RQ5) did not indicate a statistically significant association between integrated motivation (*M* = 9.66, *SD* = 8.61) and satisfaction (*M* = 134.57, *SD* = 139.98), t_b = 0.068, $p < 0.639$. An analysis of the association between integrated motivation and athlete satisfaction

levels suggested a correlation between the variables. Therefore, there was evidence to accept the null hypothesis and reject the alternative hypothesis. This invalidated the alternative hypothesis H_1, which stated that there is a correlation between external athletes' motivational style (*integrated*), as measured by SMS-II, and the individual performance construct of athletes' satisfaction, as measured by ASQ, within a two-year university system. Nonparametric correlation analysis was applied because the variable was ordinal but had outliers. However, further examination of the association suggested that integrated motivation affects about 37.20% of the athlete's feelings of satisfaction.

Amotivation motivation

Results from the Kendall's tau-b analysis, performed to evaluate the null hypothesis associated with research question 6 (RQ6), did not indicate a statistically significant association between amotivated motivation (M = 3.66, SD = 4.08) and satisfaction (M = 134.57, SD = 139.98), t_b = 0.075, p<0.610. An analysis of the association between amotivated motivation and athlete satisfaction levels suggested a correlation between the variables. Therefore, there was evidence to accept the null hypothesis and reject the alternative hypothesis. This invalidated the alternative hypothesis H_1, which stated that there is a correlation between external athletes' motivational style (*amotivated*), as measured by SMS-II, and the individual performance construct of athletes' satisfaction, as measured by ASQ, within a two-year university system. Nonparametric correlation analysis was applied because the variable was ordinal but had outliers. However, further examination of the association suggested that amotivated motivation affects about 27.87% of the athlete's feelings of satisfaction.

The limitations that emerged based on the data analysis include the incomplete and low number of responses collected from the combined questionnaires for SMS-II and ASQ. The interpretation of results may be affected by the small sample size representing the majority of university student athletes. The small sample size stemmed from limited access to student athletes, which may not entirely represent the target population of university student athletes in the Western United States. The state's governor ordered a mandated shutdown of universities and their operations to enforce shelter-in-place rules due to COVID-19. The incomplete and low number of responses were affected by restrictions prohibiting university student athletes from continuing the study. Effectively, the governor's restrictions led to a small sample size.

The researcher was cognizant that a small sample size would likely lead to a type II error. The type II error could result in the acceptance of a false null hypothesis. The type II error would skew the interpretation of the findings from the current research and, in some instances, lead to a negation of consistent results in comparable studies. Against the contextual understanding that a type II error could result from the current small sample size, the researcher undertook both parametric and non-parametric bivariate analysis. This was to address the validity of the current data analysis and expose any errors, including possible type II errors. The researcher also chose to cut off significance at the .008 level to make it harder for a false negative to pass undetected. With these measures, the researcher was confident that any type II errors due to the small sample size would have been addressed sufficiently.

This study's findings are bounded by the research study design. The determination of the correlation between the athletes' motivational style and satisfaction was sought through a quantitative correlational analysis. This analysis was chosen as the research methodology in which the findings of the study reflected inconclusive results. A Kendall's correlational analysis was performed to assess a small sample size and help establish the associations between athletes' motivation and their satisfaction. A Kendall's correlation aligned with the findings of this research. The assumptions were met, and the null hypotheses were ultimately accepted. Therefore, the research questions answered, in addition to testing the strength of the correlation between the variables, were inconsequential.

For all the associations established, the correlation between the athletes' motivation style and the levels of satisfaction was insignificant. There were minimum data collected due to COVID-19 causing the closing of colleges, so results demonstrated a weak correlation between motivation and athletes'

satisfaction. That means there is not enough data collected to show a strong significant correlation association between athletes' motivation and athletes' satisfaction. The research in this area of the correlation between athletes' motivation and their satisfaction was very limited. The findings of this study contribute to the body knowledge regarding the extent of the correlation between the factors of motivation and athletes' satisfaction. From this analysis, it is clear that the individual performance factors of intrinsic, external, identified, integrated, introjected, and amotivated motivation were not impactful on athletes' satisfaction. However, the findings from this research have provided opportunities for new research in this area with the addition of a larger sample size.

For the whole research, it is apparent that the research questions were answered. The researcher investigated the existence of a correlation between each of the athletes' motivation measures and the athletes' satisfaction levels for the population of interest. By answering the research questions, the researcher not only created a way for the interpretation of the results but also for extrapolation of what those results could mean. Considering that the current study followed a quantitative structure, it is rational to assume that extrapolation of the results within the population of interest is a logical progression of the current research.

The measurement of satisfaction in athletes was to understand better why they continue to play a sport (Harrison et al., 2015). The examination that it is not known if and to what extent there is a correlation between athletes' motivational styles (intrinsic, external, identified, introjected, integrated, and amotivated) and the individual performance construct of athletes' satisfaction within a two-year university system addressed the void in the literature previously suggested from research conducted by Jowett (2017) and Contreira et al. (2019). The SMS-II and ASQ instruments were determined to be reliable, and the researcher was able to quantify the individual performance construct on motivation and the extent of the correlation with athletes' satisfaction.

Previous studies suggested that student athletes were more likely to prefer intrinsic forms of motivation and therefore be more satisfied with their sport (Ntoumanis & Mallett, 2014). These conclusions found that student athletes do not prefer forms of motivation to be satisfied with participating in a sport. In other words, athletes may not consistently need to be satisfied in their sports or motivated by factors in order to continue participating. Their sport involvement may possibly only require them to "want" to play. Perhaps motivation is not needed to remain satisfied with their sport despite negative external factors. Under this current research, the Kendall's tau-b did not result in athletes' intrinsic, external, identified, integrated, introjected, and amotivated motivation and their satisfaction scores being strongly correlated. Coaches may use the findings from the results of this research to adjust their coaching style and prevent attrition in college team sports.

Contributing to research is important for generating new knowledge to the body of research in an effort to create and implement effective motivational strategies to improve performance (Contreira et al., 2019; Jowett, 2017). The assessment of athletes' motivational styles and athletic satisfaction in team sports aids in examining the correlation between athletes' motivational styles and their satisfaction, in addition to identifying the gap in research. The correlation between athletes' motivations and their individual performance construct of satisfaction with the chosen athletic activities was not fully researched, which was addressed in this research study (Contreira et al., 2019; Jowett, 2017).

This research study added to the research body of knowledge by investigating additional motivational variables of athletes, such as intrinsic, external, identified, introjected, integrated, and amotivated motivational styles, whereas intrinsic and external (*extrinsic*) motivation were the primary variables previously researched. This research study also allows coaches to view a broad spectrum of motivations preferred by athletes across sports teams, such as baseball, softball, basketball, and soccer. Coaches will now be able to coach their athletes and team more effectively and create and implement effective motivational strategies that improve athletic performance. Athletes' performance levels will increase to accomplish internal satisfaction and external rewards of winning championships.

The findings from this research study were supported by the data obtained from the research

design that extended from theory and research questions. Research questions were developed from the identified gap where the assumptions were tested, in addition to adding to the existing body of knowledge in research. The findings of the study addressed the research questions and determined that there is no correlation between athletes' motivational styles and their individual performance construct. The assessment of the correlation between athletes' motivations and their satisfaction with their chosen athletic activities reported inconclusive results. Athletes' satisfaction was not fully researched according to previous research by Jowett (2017) and Contreira et al. (2019); therefore, athletes' satisfaction was addressed in this study, along with research questions and hypotheses. A Kendall's tau-b was performed using SPSS to test the assumptions, and a two-tailed test assessed if there is a difference in satisfaction scores between university student athletes' motivational styles (intrinsic, external, identified, introjected, integrated, and amotivated) and their individual performance construct of athletic satisfaction. The findings from this data were evaluated and showed no indications of significance. The preliminary analysis showed that there were no violations in the assumptions of normality, linearity, and homoscedasticity. There was insignificant evidence to reject the null hypothesis and conclude that there was no association between athletes' motivation and satisfaction.

RECOMMENDATIONS

Recommendations for future research are based on the results from this study. The results from this study suggest that there is no strong positive statistical significance in the correlation between athletes' intrinsic, external, identified, introjected, integrated, and amotivated motivation and their satisfaction. The study of the primary factors behind the motivation factors of athletes, along with a larger sample size, would guide the suggested recommendations for future research.

Recommendations for future research

For the future, the primary researcher recommends carrying out the same study but using a bigger sample size. That would not only help eliminate the uncertainty due to the small sample but also create a comparable study for comparing the findings established in this research. Further, this research recommends studying the factors behind intrinsic motivation for athletes. Intrinsic motivation still remains the most viable approach to increasing athletes' satisfaction levels, whereas external, identified, introjected, integrated, and amotivated motivational styles do not hold a strong impact on satisfaction levels.

Chapter one discussed how the researchers Jowett (2017) and Contreira et al. (2019) recommended further examination of motivation in collegiate sports and the study of athletes' satisfaction due to limited findings. This research assessment of athletes' motivational styles and athletic satisfaction in team sports aided in determining that there is a strong enough statistical significance of the correlation between athletes' motivational styles and their satisfaction with such a small sample size group. These conclusions are to generate new knowledge to the body of research and better understand why collegiate athletes continue to play a sport.

Recommendations for future practice

For future practice, athletes and coaching teams should focus on the intrinsic motivation of each athlete. Different personalities have different intrinsic motivations. Identifying what drives an athlete internally presents the best opportunity to determine what creates the best possibility for raising that athlete's performance, assuming that an athlete's productivity is consistent with the satisfaction levels. Future practice, therefore, would be to try and coach the athletes to harness their internal drive rather than any other approach, such as external motivation through gifts or performance-based rewards, unless the rewards are part of the internal motivation for athletes. An important example of an intrinsic reward is participating in sports for the sake of having fun. The drive for the athlete is enjoying the sport. Leaning into this by making the sport as fun as possible can help enhance athletes' satisfaction levels.

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