PARTICIPATION CONSTRAINTS AND MITIGATION STRATEGIES OF UNIVERSITY STUDENT-ATHLETES IN SELECTED SPORTS IN KENYA

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A RESEARCH THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTERS OF SCIENCE (RECREATION AND SPORTS MANAGEMENT) IN THE SCHOOL OF BUSINESS, ECONOMIC, AND TOURISM, KENYATTA UNIVERSITY, NAIROBI, KENYA.

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DECLARATION

This thesis is my original work and has not been presented for a degree in any other University.

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DEDICATION

To my parents for their encouragement, continued support and the important role, they have played throughout my studies.

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OPERATIONAL DEFINITION OF TERMS

Constraints: Experienced or perceived factors that affect individual's capability to participate in sports, such as lack of time due to busy schedules.

Interpersonal Constraints: Factors arising from social interactions with people or relationship, such as lack of friends to play with or no support from significant others to participate in sport with.

Intrapersonal Constraints: Factors that arise from psychological conditions within the individual, such as; attitudes, self-efficacy, personality and moods.

Negotiation Strategies: Methods or arrangements, used by individuals to reduce the effects of constraints to sports participation, such as; planning ahead

Participation: Engaging in a certain sport on a competitive basis by students at the university level.

Private University: Universities owned and operated by private entities like church or individuals

Public University: Universities owned and financed by the government in terms of land, capitation and payment of members of staff.

Selected Sport: Team sports and individual sports which the university student-athletes take part in. They include; soccer, volleyball, hockey, basketball, tennis, swimming and athletics.

Socio- Cultural Constraints: Factors associated with ethnic backgrounds, beliefs and religion that limit participation in sports.

Structural Constraints: Factors that are associated with the external conditions in the environment, like inadequate facilities and opportunities.

Student-athlete: A student registered in a Kenyan university participating in sports at competitive level within the university setting.

Year of study: Level in university education that the respondent is enrolled in, this can be first year, second year, third year and so on.

LIST OF ABBREVIATIONS AND ACRONYMS

CRS: Campus Recreational Sport

CT: Constraints Theory

CUE: Commission of University Education

FASU: Federation of Africa University Sports

FISU: International University Sports Federation

GPA: General Point Aggregate

HSD: Honestly Significant Difference

KUSA: Kenya Universities Sports Association

LTPA-C: Leisure Time Physical Activity Constraints

NACOSTI: National Commission for Science, Technology and Innovation

S**PSS:** Statistical Package for Social Science

USCQ: University Sport Constraints Questionnaire

ABSTRACT

Participation in sports plays an important role in university students' life, such as the development of a healthy lifestyle and promotion of education. However, there is low participation in sports in universities which may be due to various constraints, experienced or perceived by university students. The purpose of this study was to examine constraints hindering the university students-athletes participation in sports activities and the negotiation strategies they use or can be used to overcome sports participation constraints. The study used a cross-sectional survey design and questionnaires to collect data. Respondents were male (n=198) and female (n=191) student athletes from 4 (13%) public and 3 (17%) private universities in Kenya, participating in six selected sports. T-tests, One-way analysis of variance and correlation of coefficient were used to test the hypotheses of the study at 0.05 level of significance The findings indicated that participation in sports was mostly affected by structural constraints (M= 4.28 SD= 0.75) and least affected by social cultural constraints (M=3.09, SD= 1.20). The sports participation negotiation strategies that were used most by student-athletes were intrapersonal strategies (M= 4.10, SD= 0.84) while time management strategies were least used (M= 3.25, SD= 0.44). There were significant mean differences between male and female student-athletes in regard to structural constraints, ($t = -2.21$, $p=0.03$) and interpersonal constraints $t = 1.14$, $p = 0.02$). There was a significant difference of private and public institutions with regard to structural ($t = .39$, $p=0.01$) and intrapersonal constraints ($t = 0.69$, $p=0.03$). There was a significant difference between male and female athletes in the strategies of skill acquisition ($t= 0.05$, $p = 0.02$), financial management ($t= -0.50$, $p = 0.04$) and intrapersonal ($t= -0.88$, $p = 0.03$). Concerning the type of institution and negotiation strategies, there was a significant difference in interpersonal strategies ($t = -.23$, $p=0.03$), financial management strategies ($t = -1.42$, $p=0.00$), and time management strategies ($t = 1.33$, $p=0.02$). Results regarding the type of sport indicated that basketball players were the most constrained while volleyball players were the least constrained ($F=4.347$, $p<0.05$). Female students significantly experienced more constraints than male student-athletes. Student athletes from public universities experienced more constraints than those from private universities, whereas the use of negotiation strategies was higher in private universities compared to public university. The study recommended Kenyan universities to put in place programs and structures as opposed to merely unstructured university sports. Universities should encourage students to use sports facilities by coming up with more facilities and favorable environment. University students' participation in sports should be enhanced in order to reduce the constraints that hinder them. A longitudinal study is recommended to investigate sports participation constraints and negotiation strategies of student athletes throughout their campus life.

CHAPTER ONE: INTRODUCTION

1.1 Background to the study

Most universities encourage sports participation and provide a variety of sports facilities and programs (Lindsey, 2012). This is attributed to the fact that sports participation by university students has numerous positive benefits that are well documented. For instance, Kampf and Teske (2013) indicated that participation in university recreational sport activities contributes to acquiring of skills for learning and preparation for professional life. This is supported by Kim, Sparvero, Olmeda, (2016) suggestion that students who participate in university sports are more likely to transfer skills and character traits such as integrity, commitment and work ethics learned from sports into their career fields.

More benefits associated with sports participation by university students include; improved physical fitness, high self-esteem, better academic performance, enhanced mental and social development (Coenders, Mensvoort, Kraaykamp, Breedveld, 2017; Diehl, Fuchs, Rathmann, Hilger-Kolb, 2018; Forrester, 2015; Henchy, 2013; Kampf & Teske, 2013; Khan, Jamil, Kareem, 2012; Kim et al., 2016; Routon, & Walker, 2014; Vasold, Deere, Pivarnik, 2019; Yigiter & Bayazit, 2013). Additionally, if sports participation is maintained, the benefits lead to good health and well-being of students throughout their life in campus and even after graduation (Henchy, 2013).

Indeed, there is evidence of university student-athletes from the developed countries who have participated and attained inspiring performances in global sports competitions. For instance, the University of California, Los Angeles has had at least one representative in every Olympics and has won at least a gold medal in every Olympics since 1932 (Mwisukha & Wanderi, 2014). However, literature shows that

student-athletes from African universities have not made significant impact in terms of participation and performance at international events (Mwisukha, Wahome, & Wanderi, 2011). This shows that most African universities are yet to embrace sporting practices that would allow them to produce top-notch world-class athletes (Mwisukha et al., 2011). This could be one of the reasons why there are few Kenyan university representatives at the All-Africa University Games (FASU) and International University Sports Federation (FISU) university games, (Mwisukha et al., 2011). The available studies on Kenyan universities addressing sporting issues have raised concerns that Universities in Kenya need to address sports excellence and performance (Kaimenyi & Rintaugu, 2011; Mwisukha et al., 2011). Hence, there was need to investigate the constraints that affect sports participation and how Kenyan university students can overcome them.

The low participation in sports in universities may be due to various constraints, experienced or perceived by student-athletes (Mugwedi & Mulibana, 2014; Stankowski, Trauntvein, Hall, 2017). Constraints are defined as aspects which limit or inhibit sport participation (Jackson, 2000). Godbey, Crawford, and Shen, (2010) asserts that, there are three forms of constraints; Intrapersonal factors within the individual's mind-set for instance, lacking interest, attitudes, self-efficacy, personality and moods. Interpersonal factors that arise from interactions with other people such as friends and family, lack of friends to participate with in sports, fear of being blamed by coaches, lack of social encouragements, lack of trained staff and in appropriate behavior of coaches. Structural constraints which include, demanding academic workloads, availability of resources, facilities and equipment (Scott & Mowen, 2010; Stankowski et al., 2017). In addition, there are social-cultural constraints which are those factors associated with ethnic backgrounds, believes and

religion that limit participation in sports. Such constraints include cultural stereotypes, ethic of care, parental influence and body image (Mirsafian, 2014).

Constraint research has focused on individual perceptions or experiences and less on the social structure that impacts sports participation (Samdahl, 2005; Shaw & Henderson, 2005), a factor that may be attributed to the influence of experience on individual behaviour among people. Samdahl, (2005) suggested the need to address the cultural context of individuals in leisure activity participation. Hence this study included socio-cultural constraints, which include beliefs and norms from the background of an individual from different communities. This was also supported by studies which suggest that cultural beliefs may constrain participation in sports, particularly amongst female student-athletes (Asihel, 2009; Mirsafian, 2014; Tekin, 2011). According to Little (2002), socio-cultural constraints form the basis for studying other types of constraints.

Sports participation constraints can be navigated through the use of negotiation strategies. These negotiation strategies, refers to cognitive and behavioral methods used by student-athletes to overcome or reduce the effects of constraints to sports participation. Participation in sport by student-athletes is dependent on negotiation strategies employed and not on the absence of constraints (Jackson, E. L., Crawford, D. W., & Godbey, G. 1993; Scott, 2005). Some of the negotiation strategies employed by student-athletes include; skill acquisition, time management, planning ahead and improving on finances (Beggs, Elkins, & Powers, 2005; Rintaugu, Mwangi, Bailasha, 2013; Wood, 2011). In most cases, negotiation strategies tend to adjust the constraints towards participation hence facilitating the individual's participation in sports (Son et al., 2008).

Researchers on constraints and negotiation strategies among university students, have recommended further research including all university students in terms of year of study, gender, type of university and the type of sport participated in, (Jackson, 2000; Gyurcsik et al., 2006). It is imperative to note that the different levels of learning, that is year of study present varied constraints and negotiation strategies which determine their level of participation. For example, first years are still new to the university environment and therefore still settling down while fourth years are preparing to leave campus hence both have limited opportunities to participate in sports (Njororai, 2010). In relation to gender, it is reported that female student-athletes are more constrained in sports participation compared to male student-athletes, (Hoden, Gallegos, & Extremera, 2010; Little, 2002; Mirsafian, 2014). This may be due to socially-derived gender role, (Shaw & Henderson, 2005). It is also documented that constraints to sport participation increase with advancing age where most athletes prefer to start participation in sport early before reaching their peak age (Balaska, Alexandris, Kouthouris, & Polatidou, (2012); Bloemhoff & Coetzee 2007; Jackson et al., 1993).

Most of the studies on constraints and constraint negotiation have focused on individual perspective in terms of sports participation, hence little is known about constraints in team sports and how they are negotiated (Mannell & Iwasaki, 2005; Wood, 2011). Scott (1991) found that when players in a team were faced with constraints, they used negotiation strategies such as skill enhancement and recruitment of substitute players to overcome some of the constraints. Thus, there was need to establish and expound more on how constraints are perceived and negotiated in both individual and team sport at the university level. Hence, this study

investigated constraints in both individual and team sports and how they are negotiated to enable continued participation in various sports.

1.2 Statement of the problem

Sports participation by university student-athletes presents them with numerous positive contributions towards their well-being (Elkins, Forrester, & Noël-Elkins, 2011; Henchy, 2013; Routon & Walker 2014; Yigiter & Bayazit, 2013). However, despite the benefits accrued from sports participation, a huge number of university students do not participate regularly in university sports. Reduced sports participation reduces the possibility of meeting their physical activity recommendations (Daskapan, Tuzun, & Eker, (2006); El-Gilany, Badawi El-Khawaga, & Awadalla, 2011; Fagaras, Radu, & Vanvu, 2015). Universities in Kenya spend a lot of money on sport infrastructure and human resources in order to conform to Commission for University Education (CUE) (2014) guidelines on provision of appropriate and adequate sports facilities for students. In spite of having sports and games departments, the Kenyan universities have made negligeable impression in presenting student-athletes in international events (Mwisukha et al., 2011). Yet, various sport programs are accessible to student-athletes free of charge. Since participating in such programs is voluntary, certain factors hinder their decision making of participating in sports (Crawford, Jackson, & Godbey, 1991; Godbey et al., 2010; Stankowski et al., 2017)

Studies in sports participation constraints and negotiation strategies, (Beggs et al., 2005; Chung, Liu, & Chen, (2013), Gyurcsik, Spink, Bray, Chad, & Kwan, 2006; Loucks-Atkinson & Mannell, 2007; Son et al., 2008; Rintaugu et al., 2013) have recommended further research on how various demographic variables such as gender, year of study, type of institutions and type of sport influence constraints and

negotiation strategies. Hence, this study investigated constraints hindering the participation in sports activities and the negotiation strategies used or that can be used to overcome these constraints in sports at university settings in Kenya.

1.3 Purpose of the study

The purpose of this study was to assess the sports participation constraints and negotiation strategies used by university student-athletes in Kenya.

1.4 Objectives of the study

The study was guided by the following objectives:

(i) To find out the constraints to sports participation among university student-athletes in Kenya.

(ii) To find out the negotiation strategies used by Kenyan university student-athletes to enhance sports participation.

(iii) To determine if there is a significant difference in sports participation constraints based on gender, year of study, type of university, and type of sport among university student athletes in Kenya

(iv) To determine if there is a significant difference in sports participation negotiation strategies based on gender, year of study, type of university, and type of sport among university student-athletes in Kenya.

1.5 Research questions

(i) What are the sports participation constraints experienced by student-athletes in Kenyan universities?

(ii) What are the sports participation negotiation strategies used by student-athletes in Kenyan Universities?

1.6 Research hypotheses

The following hypotheses were formulated for testing.

$H0_1$ There is no significant difference in sports participation constraints among student-athletes in Kenyan universities based on

i Gender

ii Year of study

iii Type of university

iv Type of sport

$H0_2$ There is no significant difference in sports participation negotiation strategies among student-athletes in Kenyan universities based on.

i Gender

ii Year of study

iii Type of university

iv Type of sport

1.7 Significance of the study

The findings from this study would benefit various stakeholders in the higher education sector in Kenya in various ways. Findings from this study gives baseline information in understanding what students need in order to negotiate sports participation constraints, thus providing guideline on interventions by coaches and sport administrators in the Universities to meet the students' sports participation needs.

The findings of this study may help student associations in various universities to understand the constraints of sports participation and hence put efforts to promote sports in the institutions since they are mandated to oversee students' welfare. The

findings facilitate formulation of measures to eliminate the constraints of student participation in sport within universities in Kenya. The findings of this study also enhance literature in the area of sports participation constraints and negotiation strategies in Kenyan Universities.

1.8 Delimitations of the study

This study was delimited to;

(i) Public and Private universities in the five Kenya University Sports Association (KUSA) conferences in Kenya.

(ii) Students participating in selected university sports of; Team sports (basketball, soccer, volleyball), and Individual sports (athletics, badminton, swimming and tennis).

(iii) Questionnaires as the instruments for data collection.

1.9 Limitations of the study

Bias was possible to arise due to the use of self-report data by student-athletes. However, the researcher guided participants on how to fill the questionnaires assuring them of confidentiality and ensuring all ethical considerations.

1.10 Assumptions of the study

(i) Student-athletes have to some extend negotiated sport participation constraints.

(ii) That the student-athletes would be honest in their responses and that the study instrument would measure all the sports participation constraints and negotiation strategies they use.

1.11 Theoretical framework

The study was anchored on two theories, the constraint theory (CT) and the theory of constraint negotiation. The two theories represent the phenomenon of constraints and negotiation strategies as it exists in ports participation. The CT was first proposed by Crawford and Godbey (1987), who introduced a framework comprising of constraints revolving around three types; intrapersonal, interpersonal and structural constraints

Constraints are regarded as preceding factors which shape preferences and participation. CT further asserts that constraints are experienced sequentially rather than simultaneously in a hierarchical order, that is, from most proximal to the distal intrapersonal, interpersonal and structural respectively. (Crawford et al., 1991). However, Godbey et al. (2010) after assessing the theory after two decades recommended that the model should be interpreted as circular and is dependent on the stage in life an individual is in, which is influenced by various personal parameters such as skills, attitudes, accessibility facilities, interests, social network, and cultural background. Additionally, other studies have differed with the hierarchical order and have challenged the ranking of constraints (Dhurup & Garnett, 2011; Godbey et al., 2010; Halforty & Radder, 2015; Shifman, Moss, D'Andrade, Eichel, & Forrester, 2011). They have suggested that constraints are dynamic and will continue evolving as people move through various stages of life, with the strength of constraints also varying significantly depending on cultural, social, and historical context (Dhurup & Garnett, 2011; Godbey et al., 2010; Halforty & Radder, 2015; Jackson, 2000; Shifman et al., 2011; Young et al., 2003).

The constraint negotiation theory which was proposed by Jackson et al., (1993), suggests that people who participate in any physical activity might have effectively negotiated constraints. Individuals may not participate due to lack of successful negotiation strategies of perceived or experienced sports participation constraints (Jackson et al. 1993). CT also implies that there is linear negotiation of constraints based on the assumption that there will be no desire to participate in sports if one does not negotiate to overcome them (Crawford et al.,1991).

Figure 1.1 shows both the positive and the negative relationship that constraints and negotiations have with participation in sports (Jackson et al., 1993). Constraints have a negative impact on sport participation. The negative impact can be mitigated through the utilization of strategies (Hubbard & Mannell 2001). University students perceive different constraints, which negatively influence sports participation, depending on their various demographic factors, such as, gender, type of sport, year of study and nature of the university. When faced by the constraints, the aspect of negotiation strategies comes in and a positive influence on sports participation is observed.

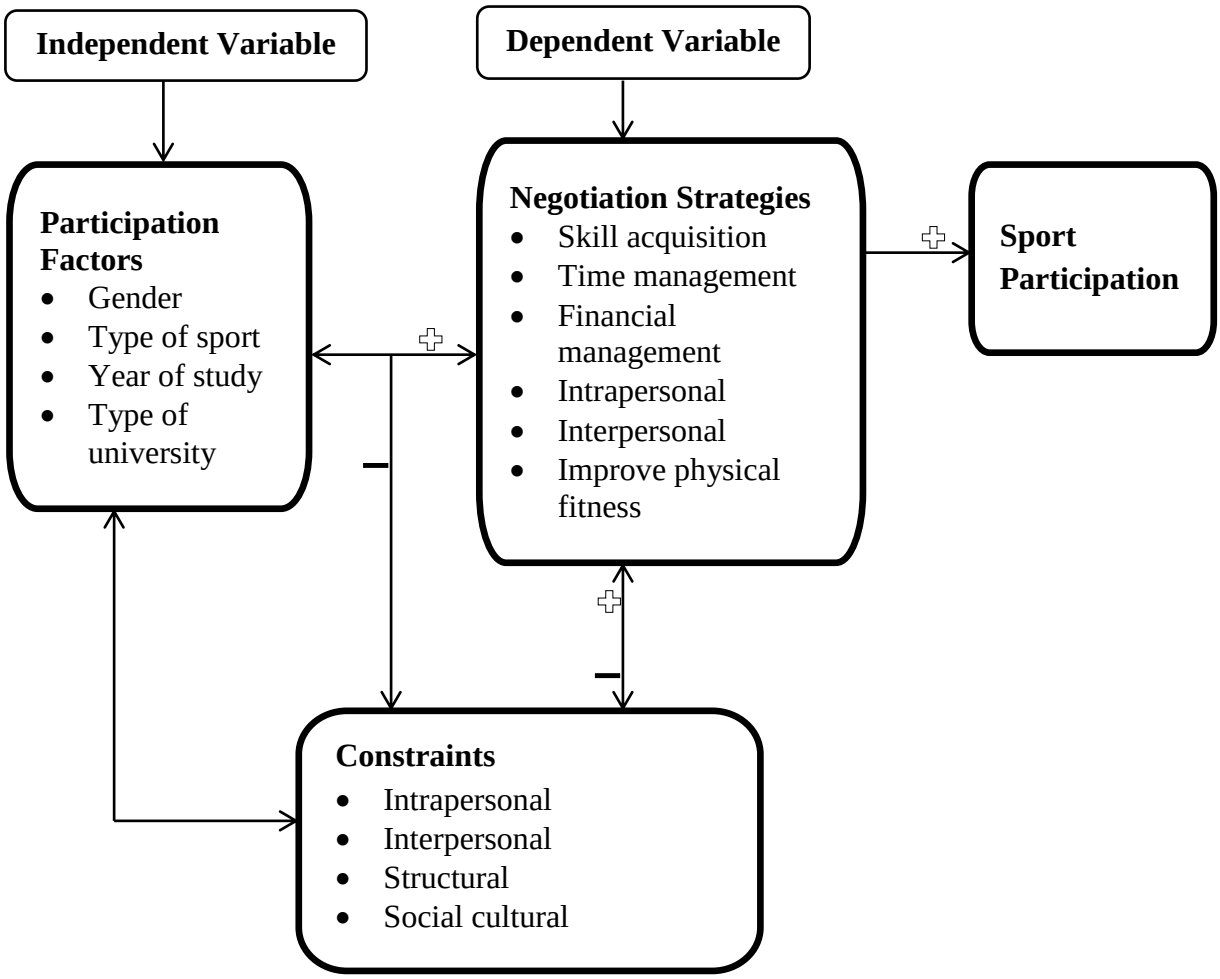

Figure 1.1: Sports participation relationship between constraints and negotiation strategies

CHAPTER TWO: LITERATURE REVIEW

2.1 Importance of sport participation to university students

Sports participation among university students is important because this age group (18-25 years) represents a critical transition period to adulthood where lifestyle choices regularly become relatively stable (Amusa, Toriola, Onyewadume, & Dhaliwal, 2008), Sigmundová, ChmelÍk, Sigmund, Feltlová, & Frömel, 2013) and lead to more permanent sports participation patterns later in life. In addition, healthy lifestyles achieved through sports participation may be the least expensive and the best way to combat the growing prevalence of cardiovascular diseases, as individuals increase in age (WHO 2014).

University students are an important group since they are future leaders of the society and their sports participation behavior will not only affect their own health, but will serve as a role model to the society. Hence, developing a sporting culture at this point in their lives can have a long-lasting impact not only on their health, but also on the health of the nation. University students are also a relatively understudied population in terms of their physical activity (Amusa et al., 2008; Coenders, van Mensvoort, Kraaykamp, & Breedveld, 2017; Kampf &Teske 2013; Vasold et al., 2019; Yankholmes, & Lin, 2012).

It is normally accepted that participation in sports has several health-related benefits which include, prevention of non-communicable diseases (Kim et al., 2016; WHO 2014). Additionally, sports participation by university students, has various benefits which include improved physical fitness which is associated with good health (Henchy, 2013), social development benefits (Elkins et al., 2011), psychological and mental health (Bray & Kwan 2006; Elkins, Beggs, & Choutka, 2007) and academic

benefits, such as improved grade point average (GPA) and formation of a sense of university community (Danbert, Pivarnik, McNeil, & Washington, I. J. 2014; Elkin et al., 2011). Furthermore, it helps in the development of positive relationship between the students and the institution (Henchy, 2013). This affinity towards the university explains the reason why sport participation is linked with student enrollment and retention in university sports teams and clubs (Henchy, 2013) through opportunities provided for student-athletes to enhance participation in sports they enjoy.

Despite all these benefits accrued from regular participation in sports and its capability to improve health, there is little evidence to suggest that the frequency of participation among university students will increase (Awadalla, Aboelyazed, Hassanein, Khalil, Aftab, Gaballa, & Mahfouz, (2014); Ceurvorst, Fuller, Childers, Dubois, & Steiger, (2018), Daskapan et al., 2006; Dhurup & Garnett 2011; Thomas, Beaudry, Gammage, Klentrou, & Josse, 2019). More alarming is the reality that engagement in physical activity declines with age since sports performance occurs in three stages including starting, peak and decline, where the transitions occur as the age increase (Bloemhoff, & Coetzee, 2007; Jones, & Barrie, 2011; Van Dyck et al., 2014). Moreover, many university students do not participate in sports in Kenya (Mwisukha et al., 2011), which should be a concern to both sports departments and university administrators. This is because universities have invested heavily in sports infrastructure, employed personnel, and pay membership fee to Kenya University Sports Association to provide avenues for students to participate and compete in sports.

2.2 Sports participation constraints experienced by university students

Sports participation constraints are defined as factors which limit or inhibit sport participation (Jackson, 2000), and differ from one person to another in terms of perception, interpersonal relations infrastructure and institutional based (Young et al., 2003). Hence, research on constraints towards sports participation need to be carried out within a specific framework of activities and target groups. This is in order to understand the barriers to participation in sports. Constraint research has been closely aligned with the social psychological approach and has tended to focus on individual experiences or perceptions and less on the social structure that influence sports participation (Samdahl, 2005; Shaw & Henderson, 2005).

2.2.1 Categorization of sports participation constraints

Constraints are categorized into three forms which are intrapersonal constraints, interpersonal constraints and structural constraints (Crawford et al., 1991).

Intrapersonal constraints

These are constraints that revolve around the mindset of an individual (Crawford & Godbey, 1987). In addition, intrapersonal constraints attributes to those psychological circumstances that emerge internal to the individual such as personality factors, character or more limited psychological states such as attitude (Crawford et al., 1991). Examples include; anxiety, depression, stress preceding in specific leisure exercise, anticipated self-skill and instinctive evaluations and availability of various leisure exercises.

Interpersonal constraints

Interpersonal constraints arise when there is interaction or relationship between individual's attributes with other people or interpersonal relations is general

(Crawford et al., 1991). An individual who feels he or she lacks a colleague with whom he or she shares a common interest exercise may encounter an interpersonal constraint if he or she is incapable to establish a partner with whom a specific leisure activity is being participated. Examples include, lack of trained staff lack of friends to participate with (Crawford et al., 1991).

Structural constraints

Structural constraints factors include inadequate opportunities that result from external activities in the environmental conditions. These constraints are frequently conceptualized as intervening factors in leisure participation and predilection. Some of the structural constraints may include inadequate facilities, crowded facilities, availability of opportunity, weather conditions, season and attitudes among referencing groups and appropriateness of certain activities (Crawford & Godbey, 1987).

Social-cultural constraints

These include factors associated with ethnic backgrounds, believes and religion that limit participation in sports. Such constraints include cultural stereotypes, ethic of care, parental influence and body image (Mirsafian, 2014; Shifman et al., 2012)

2.2.2 Hierarchical Model of Leisure Constraints

The relationship models between intrapersonal, interpersonal and structural constraints have been the subject of analysis providing understanding and were considered distinct and conceptually detach (Jackson & Scott, 1999).

Jackson, et al (1993) later developed hierarchical model which integrated each other as previous models (intrapersonal, interpersonal, structural) into one single hierarchical model, since it was hypothesized into these constraints that were

encountered hierarchical and proposed as a leisure participation. These constraints are encountered hierarchical and this model is used as a theoretical framework in this thesis.

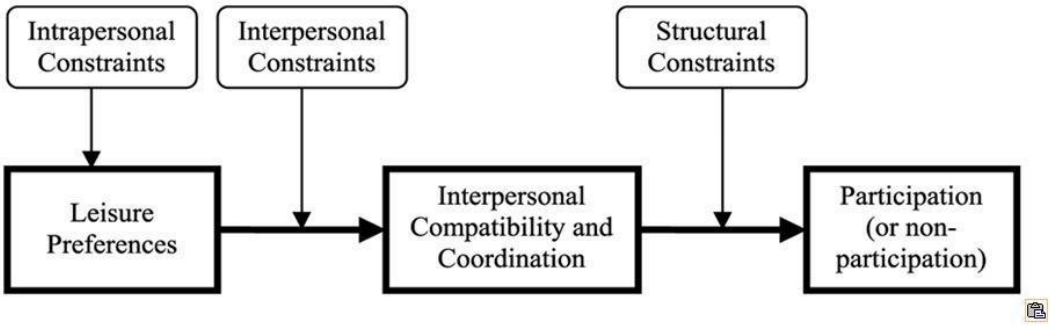

Figure 2.1: Hierarchical model of leisure constraints (Crawford & Godbey 1987)

The model argued that affected individuals by intrapersonal constraints are least likely to encounter higher order constraints (interpersonal and structural), while individuals affected less intensely by intrapersonal constraints are more likely to face higher order constraints (Crawford et al. (1991). In examining the hierarchy of constraints and hierarchy of social privilege the relationship between socio-economic status and constraints leisure tends to report a structural constraint that increases total expenditure and education. The positivity of correlation between socioeconomic status and experience level of constraint (Elkins, 2004). These three types of constraints have also been found within the literature on campus recreation, primarily in the context of intramural sport (Shifman et al., 2011; Stankowski et al., 2017; Wood & Danylchuk, 2015). However, what remains less clear is how sports participation constraints are related to different forms of university sports.

Numerous studies have been conducted on constraints in universities, but the results have not been consistent (Chung et al., 2013; Drakou, Tzetzis, & Mamantzi, (2008);

Halforty, & Radder, 2015; Masmanidis, Gargalianos, & Kosta, 2009; Mirsafian, Dóczi, & Mohamadinejad, 2014; Ocal, 2014; Spivey, & Hritz, 2013; Tekin, 2011; Trail, Robinson, and Kim, 2008). For example, Halforty and Radder (2015) studied constraints among South African undergraduate student athletes (n=283) participating in sports. The constraints were measured using items from Drakou, et. al., (2008) instrument and the findings showed that the greatest constraints to sports participation included time, accessibility, facilities, lack of partners, and activities for both genders. However, the study only assessed the constraints and relationship between constraints and genders. There was need to assess the same in relation to other demographic characteristics like year of study, type of sport and nature of university. These factors have been found to influence sports participation constraints in universities and different parts of the continent (Asihel, 2009; Masmanidis et al., 2009; Mirsafian, 2014).

Ocal (2014) examined the Leisure Time Physical Activity constraints of tertiary students (n=563) from a public university in Turkey using a 38-item, LTPA-C Scale. This study targeted only the students residing in campus and therefore they may have not experienced or perceived all the form of constraints. The study also, only focused on leisure time physical activity and it warranted the need to investigate constraints in competitive sports (Ocal, 2014).

Gyurcsik, Bray, & Brittain, (2004) studied barriers to sport participation among American female students (n=132), and the findings revealed lack of time, lack of motivation, lack of partners, weather, social invitations and seasonal factors, as the major constraints. The current study set to find out if similar results would be reported by student athletes from an African setting.

In a related study, Ehsani, (2005), examined Iranian female undergraduates' sport participation constraints. Results showed that facilities, lack of partners, transportation, lack of time, money, awareness, lack of interest and skill were the greatest constraints. Iran being a majority Muslim country, the current study was in a different religious setting in Kenya.

Beirami (2009) examined constraints toward sports participation among students (n=416) from two cities in Iran. The study found that students perceived intrapersonal, interpersonal structural and socio-cultural constraints toward sports participation. Results also revealed that female students experienced more constraints than male students.

Chung et al., (2013) examined recreational sport participation constraints among Chinese university students. Results revealed that students were constrained by various constraints which included, lack of partners or friends to participate with, lack of skills, lack of skilled coaches, lack of time, social commitments and study obligations. Female students were significantly constrained by lack of interest, lack of time, knowledge and lack of partner compared to male students. From these studies it appears that gender impacts on constraints and it raised interest to investigate the same in Kenyan universities.

In another study, Spivey and Hritz (2013) investigated constraint to Campus Recreation Sport (CRS) participation among American students. Findings revealed that insufficient time, equipment, friends and family were the greatest constraint to CRS participation. In addition, the results revealed various participation constraint differences based on different CRS activities which the current study investigated considering selected sports.

Masmanidis et al., (2009) developed the University Sport Constraints Questionnaire (USCQ). This tool was used to measure CRS participation constraints from Greek students (n=3041) from seven different universities. The study concentrated on constraints effects of students' involvement in recreational sports. Results revealed accessibility, study obligations, facilities, services, lack of partners and lack of information to be the greatest constraints to campus recreational sports.

Montasser, El-Fattah, & Helal, (2011) examined perceived constraints and vigorous physical activity patterns of first-year university students in Egypt (n=500). Results revealed a positive relationship between physical inactivity and constraints. The less active students experienced a higher prevalence of constraints compared to physically active students.

In a similar study, Downes (2015) examined physical activity levels constraints and dietary habits among college students. Results showed that there was a significant negative relationship between constraints and physical activity levels. Moreover, specific constraints emerged which included lack of knowledge, health problems, accessibility, lack of encouragement and lack of motivation. However, these findings may not be representative of the wider student populations since participants were sampled from a community health fair and constraints were framed in relation to healthy dietary habits and physical activity.

Mirsafian et al., (2014) investigated Iranian female university students' attitude towards sport and exercise using semi-structured in-depth interviews. Findings revealed that participation in sport was significantly influenced by personal, social, structural and cultural constraints. In a similar study, Asihel, (2005) investigated perceptions of South African female university students (n=50) constraints to

recreational sports participation using focus group discussions. Results showed that lack of awareness, lack of time, finances and skills were the greatest constraints. In addition, socio-cultural constraints emerged which included cultural stereotypes, ethic of care, parental influence, body image, and others attitude towards females participating in sports. The limitation of this study was that it considered non-participants in sports and hence was not able to ascertain the negotiation strategies that those who participate have used to overcome the constraints. May be constraints were from non-participants and negotiation strategies from participants.

Smith, (2007) examined constraints to physical activity of American female students using focus group discussions. Findings revealed the major constraints to physical activity to be stress, lack of time, lack of knowledge, unhealthy choices and lack of willpower. Similarly, Nelson, Melissa & Kocos, Rebecca & Lytle, Leslie & Perry, Cheryl., (2009) examined American undergraduate students' constraints to physical activity using focus group discussions. Findings showed lack of motivation, poor weather, crowdedness, lack of skill, lack of time and costly programs as the major constraints which had a negative effect on the physical activity for both male and female.

The main limitations of the four studies, (Asihel, 2005; Mirsafian et al., 2014; Nelson et al., 2009; Smith, 2007) is that they focused on the one gender and they only measured the prevalence of constraints which does not give insight to the strength of constraints. This could also be attributed to the relatively small sample used for interviews and focused group discussions.

According to Asihel, (2005) socio-cultural constraints are considered useful concept adjunct to the existing conceptualization of sports participation constraints. Socio-

cultural constraints are seen as the most problematic constraints because they are less visible and therefore not considered to be significant. These include cultural constraints such as, expectations, beliefs, code of dress, division of domestic tasks and appropriate behavior, sex stereotypes, concern for personal safety, feelings of being not entitled to recreation, personal and family responsibilities (ethic of care) and lack of motivation.

According to Salami, Mirfatah, and Noroozian, (2002), major constraints faced by female participation in competitive sport include lack of support from their families and disadvantaged financial position. Most female student athletes depend on their parents for financial support and most of their parents are not ready to support them financially to participate in competitive sports. There is also parental pressure to concentrate only on their studies based on the belief that competitive sport is a man's territory. On the other hand, their male counterparts are encouraged to participate in competitive sport as a way of showing their masculinity and abilities (Tekin, 2011)

2.3 Constraint negotiation strategies used by university student-athletes

Some past studies on constraints and negotiation strategies have revealed unexpected findings that existence of constraints was not constantly linked to low participation rates (Alexandris, Kouthouris, Funk, & Tziouma, 2013; Jackson et al., 1993). Specifically, people with higher level of constraints were active, and many people with lower levels of constraints were not active. Hubbard and Mannell (2001) proposed a "constraint effects mitigation model" to describe the mediating effect of negotiation strategies on constraints. The principle behind this model is that constraints have two contrasting effects. First, they hinder participation, and second, they trigger the usage of negotiation strategies that in return result in increasing sports

participation. Negotiation was anticipated to contain specific strategies, such as financial, cognitive, time management, interpersonal coordination, issue management, and skill acquisition (Hubbard & Mannell, 2001).

Research on the constraint negotiation process has been carried out with a number of populations, including older able-bodied park visitors (Son, Kerstetter, & Mowen, 2008), employees with access to corporate employee recreational fitness programs (Hubbard & Mannell, 2001), persons with fibromyalgia (Loucks-Atkinson & Mannell, 2007), recreational swimmers with different involvement levels (Alexandris et al., 2013), and people who attend recreational fitness sessions in gymnasiums (Kagunda, 2018), However, there is limited research exploring the constraint-negotiation process among university student-athletes (Oliver, W.A., Simon, R. W., Michael, E. N., Jenny, C, 2019).

Negotiation strategies play an important role in alleviating the effects of constraints on sports participation (Scott, 1991; Hubbard & Mannell, 2001; Loucks-Atkinson & Mannell, 2007; Son et al., 2008). The idea of constraint negotiation was examined by Jackson, et al., (1993). They argued that participation is dependent on how individuals negotiate constraints. Hence, it is not the absence of constraints that allow participation, but rather the negotiation through the constraints. Negotiation strategies are broadly categorized into two; mental (reducing cognitive dissonance) and behavioural (change in behavior) (Loucks-Atkinson, & Mannell, 2007). Jackson, et al., (1993) suggested that the negotiation strategies to be used would depend on the situation that individuals encounter.

Jackson and Rucks (1995) examined constraint negotiation of high-school children. Results revealed that students often negotiate constraints by adopting negotiation

strategies such as, changing the use of time, working harder, improving finances and changing leisure aspirations. The study also suggested that behavioral plans were more used than cognitive strategies. Jackson and Rucks (1995) found that the type of constraints perceived or experienced by adolescents significantly influence the negotiation strategies to be employed or used to initiate or continue their participation. The study was carried out in a junior high school and it would be interesting to find out if results from institutions of higher learning would be similar.

Hubbard and Mannell (2001) formed a scale using items from Jackson and Rucks (1995) to investigate constraint negotiation strategies of employees in a corporate setting. They examined negotiation models using the interpersonal, intrapersonal, and structural constraint model, and four negotiation scales namely; interpersonal, time, financial and skills. The results revealed that constraints affect participation negatively but have a positive influence on the utilization of negotiation strategies. This study was carried out in companies giving recreation services to employees. The current study investigated the use of negotiation strategies in universities which also provide both recreation and competitive sports services to students.

Wood, (2011) analyzed constraint negotiation process among (n=237) Canadian undergraduates who were involved in intramural sports. Findings revealed that time-management, skill acquisition and interpersonal strategies were the most frequently employed by participants. Bray (2007) also reported that self-efficacy was used as a way of maintaining physically active lifestyle by students transitioning from one level to another.

Koca, Henderson, Asci, FBulgu, (2009) examined negotiation strategies to leisure-time physical activity among Turkish women attending to sport centers. Results

indicated that woman use negotiation strategies such as and organizing their time, convincing families about benefits of leisure time physical activities, and ignoring negative comments.

Rintaugu, et al., (2013) investigated on the negotiation strategies employed by Kenyan university male students participating in football based on selected demographic characteristics, using an instrument previously employed by Hubbard and Mannell (2001) and Wood (2011). The findings revealed that students used strategies such as interpersonal, skill acquisition, time management and improvising skills. When compared with other studies such as Beggs et al., (2005) and Elkins et al., (2007), similarities exist in terms of interpersonal strategies employed, time and financial management strategies. Rintaugu, et al., (2013) investigated negotiation from one gender and one team sport. It would be informative to investigate how female student-athletes employ or perceive negotiation strategies. Even though negotiation appears to vary among different settings and people, in general it seems that skill acquisition, time management, and interpersonal strategies are most commonly used, in the developed countries (Alexandris et al., 2013; Beggs et al., 2005; Elkins et al., 2007; Wood, 2011).

Yerlisu-Lapa (2014), examined the negotiation strategies employed by students from Turkish universities to negotiate leisure constraints. The researcher administered the translated version of Beggs, et al., (2005) instrument to two sets of university students (n=400) and (n=410). Results revealed 6-factor strategies that were used by university students which included skill-acquisition strategies, time-management strategies, interpersonal relations, financial management, physical fitness strategies, and intrapersonal strategies. However, Guo and Scheider (2015) failed to achieve similar

results using a translated version of the same instrument. This indicates that negotiation strategies are understood differently in different regions as well as different cultures.

Alexandris, et al., (2013) examined negotiation strategies used by recreational swimmers (n=260) with different involvement levels. Results revealed that swimmers employed negotiation strategies such as improving swimming knowledge, learning how to swim, adjusting lifestyle, improving physical fitness, time management and finding partners to participate with. The current study set to find out what negotiation strategies competitive swimmers in a university setting use and also compare with other team sports.

Elkins, et al., (2007) surveyed negotiation strategies used by college students in recreational sport participation. Findings showed significant differences between students who were regular participants and those who did not participate regularly. The various negotiation strategies used included time management, financial strategies, improving physical fitness, interpersonal relations and skill acquisition to overcome constraints. The study which was carried out in a college, also revealed that individual's capability to negotiate constraints plays a significant role in participation in sports.

Little, (2002) investigated negotiation strategies employed by women participating in adventure recreation. The study found out that when faced by constraints they engaged in several negotiation strategies, such as, anticipating future involvement, compromising on activity and prioritizing leisure. Furthermore, women are charged with more responsibilities where they fear being reprimanded by their partners if they

fail to do so (Johnson, C., Bowker, J. & Cordell, H. 2001). This study involved members of the general public and focused on adventure recreation.

When individuals are extremely motivated to participate in a given sport or physical activity, they are likely to negotiate constraints to participation (Funk et al., 2009; Hubbard & Mannell, 2001; Loucks-Atkinson & Mannell, 2007; Son et al., 2008; Wilhelm Stanis, Schneider, & Russell, 2009). Furthermore, having an identity tied to physical activity at hand and self-efficacy positively influence the use of negotiation strategies (Loucks-Atkinson & Mannell, 2007; Son et al., 2008). Motivation has been highlighted as a mediating factor in the formulation of negotiation strategies (Funk, et. al., 2009; Hubbard & Mannell, 2001; Loucks-Atkinson & Mannell, 2007; Son et al., 2008; WilhelmStanis et al., 2009). However, information is not provided on how the athlete negotiate different constraints.

2.4 Influence of demographic factors on sports participation constraints

Demographic factors such as age, year of study, gender, and type of sport have been found to influence sports participation constraints (Ehsani, 2005; Mirsafian, 2014; Salami et al., 2002). For example, Tekin (2011) examined the influence of socio-cultural and Islamic belief on sport participation among undergraduate female students (n=400) between age range of 18-24 years, in Turkey. Findings revealed gender difference in relation to constraints. Female students encounter socio-cultural barriers more intensively compared to men (Mirsafian, 2014). The findings revealed that socio-cultural constraints, and parental pressure impacted negatively on sports participation among female student-athletes (Tekin, 2011).

Chan Sun and Azmutally (2013) examined the Leisure-Time Physical Activity (LTPA) constraints of Mauritian students and found that gender had a significant

influence on constraints since more females were constrained compared to males. There exist significant differences between male and female student-athletes in terms of perceived constraints in their participation in competitive outdoor sports (Hoden et al., 2010). Hoden, further asserts that female student-athletes experience more constraints than their male counterparts.

Female student-athletes are more constrained in sports participation compared to male student-athletes (Hudson, Walker, Simpson, Hinch, 2013; Jackson & Henderson, 1995; Mirsafian, 2014). Female student-athletes tend to have, gender role expectations, cultural notions, and technical nature of the recreation and family commitments. Such constraints have come about due to 'socially-derived gender role expectations' (Shaw & Henderson, 2005). Perceived lack of skills, shyness, body image and self-consciousness were the most prominent intrapersonal constraints that influenced women's participation in leisure sports (Hudson et al., 2013).

According to Shaw and Henderson, (2005), the constraints that negatively impact on women's leisure experience when it comes to participation in sports include; outward social disapproval by friend and family who may consider it to be inappropriate for them or the influence by their romantic partners. Many studies show that the lack of awareness by females about the benefits of participating in physical activities, as well as cultural problems and social restrictions, are the major reasons affecting women participation in sport (Beirami, 2009; Ehsani, 2005; Mirsafian, 2014).

Drakou, et al., (2008), examined physical activity participation constraints of (n=320) Greek university students. Results revealed lack of facility, lack of accessibility, and lack of sport programs as the major constraints. However, the results did not significantly differ in respect to gender. This is in contrast to Tirone and Pedlar,

(2000) who found that gender roles such as family expectations and roles for females constrained girls who were interested in participating in outdoor recreation. In addition, unlike males, for females, lack of time may be more strongly experienced due to attributed gender roles such as being a wife or mother. Furthermore, definitions of what it means to be a woman in a society may result in socio-cultural constraints that generate unseen barrier in decision-making about the appropriate behavior gender-related opportunities that may be available for participation (Asihel, 2009; Ehsani, 2005; Mirsafian, 2014).

A study conducted by Lupo, Mosso, Guidotti, Cugliari, Pizzigalli, & Rainoldi, (2017) in Italy on effect of the type of sport on participation found that people are more motivated to participate in individual sport than team sport (Lupo et al., (2017). Research findings indicate that constraints depend on the type of sport an individual participates in which was also reported in Greece by (Alexandris, Kouthouris, Funk, & Chatzigianni, 2008). Intrapersonal constraint may increase with the type of sport (Alexandris et al., 2008) whereas structural constraints may decrease with age (Jackson, 1993). The researcher wanted to find out if the same results could be reported in the African setting and to be precise in Kenya, or whether there would be a difference.

Jackson (2005) found out that the level of constraints increases specifically during transition stages of a student's life such as moving from one academic year to another. For example, Bloemhoff and Coetzee (2007) examined present and retrospective constraints of (n=410) physically active South African undergraduate students between completion of their secondary school education to completion of their third year of university education. Results revealed that constraints increased as the

individual transitioned from one to another stage of learning or life, due to lack of motivation, study commitments, and lack of time.

Gyurcsik et al., (2004) also studied the participation constraints experienced while transitioning from one stage of learning to another. Their respondents experienced more constraints in later years than during first year of tertiary education. In their recommendation, Gyurcsik et al., (2004) called for further research on the association between demographic characteristics and sports participation constraints with regard to gender which the study tried to find out.

A study by Kwame, A. B., Mustafa Y., V. B. (2003) found out that all the demographic characteristics of level of education, age, employment status and marital status had a significant effect on recreational sport participation constraints except gender. This tends to be in disagreement with other scholars who reported elsewhere that gender has a significant influence on constraints (Ehsani, 2005; Mirsafian, 2014; Salami et al., 2002).

Trail, et. al., (2008) examined structural constraints influencing sports participation of (n=202) university students. They identified various structural constraints and there were significant differences in relation to gender. Male students perceived lack of team success, lack of variety in programs and sports constraints in a greater extent than female students. Female students reported that adverse weather was a major constraint compared to the male students.

Ehsani (2005) investigated constraints among Iranian female university students. Results revealed that female university students, perceived intrapersonal, structural, and interpersonal constraints more than male students. He further argued that,

structural constraints more than any other constraints significantly reduce students' participation in sports. Additionally, results showed that students who had complex constraints had significant low sport participation levels. In a similar study, Salami, et. al., (2002) studied the sport participation constraints of (n=1640) Iranian women from different provinces. Findings showed the major constraints to be; lack of family support, family obligations, lack of time due to study obligations, financial situation, lack of sport facilities for women, and lack of motivation.

Asihel (2009) examined the perception of constraints on participation in recreational activities of female undergraduate students. Results showed that most of the respondents did not take part in any recreational sport activity on campus programs, in spite of being knowledgeable about the benefits and importance and of sports activities. Structural constraints followed by sociocultural constraints were the most cited participation constraints by the participants. Beirami (2009) found that students perceived all types of constraints toward participation in sports. Additionally, female students experienced higher structural, intrapersonal, and socio-cultural constraints than males. Although studies constantly indicate that female participants have low levels of physical activity, the relationship between gender and participation constraint is less clear.

2.5 Influence of demographic factors on constraint negotiation strategies

The different demographic factors of student-athletes gender, year of study and type of university, influence negotiation strategies used to overcome participation constraints (Beggs et al., 2005; Elkins et al., 2007; Rintaugu et al., 2013; Wood, 2011). This has been supported by scholars who have called for further research on how demographic characteristics such as course of study, gender and age relate with

negotiation strategies (Beggs et al., 2005; Loucks-Atkinson & Mannell, 2007; Rintaugu et al., 2013; Son et al., 2008). Additionally, Guo and Scheider (2015) found that negotiation strategies in various cultures are understood differently.

Beggs, et al., (2005) and Elkins, et al., (2007) studies assessed student negotiation strateies based on selected demographics and results revealed that negotiations were significantly different between gender, and not on year of study. There could be significant differences that can be revealed based on socio-demographic variables for example type of sport, year of study and type of university. Furthermore, most of the past researchers have opted not to investigate all socio-demographic variables.

Hubbard and Mannell (2001) suggested that additional research is needed to test models of participation constraint and negotiation strategies. Specifically, there appears to be no studies examining participation constraints and negotiation strategies for university students that compare how they might be different for male and female student-athletes. Moreover, there are no constraint negotiation studies examining the multiple sub-dimensions of sport participation constraints in university settings in Kenya.

Son et al., (2008) examined the relationship between age, gender, and leisure negotiation among (n=271) older adults of more than 50 years who were park visitors. The results found age and gender to be important factors in the constraint negotiation. However, the results did not support Hubbard and Mannell's (2001) findings whereby negotiation strategies partially mediated the relationship between participation and constraint. Instead, the result showed that constraints and negotiation strategies work independently and with similar, but opposite, influences on sports participation. Negotiation strategies positively influence sports participation whereas constraints

have negative influence on sports participation. Older adults of more than 50 years have unique challenges which differ from those who are younger than them. Son, et. al., (2008) focused on respondents in the older age group and thus the need for other studies to identify the influence of demographic factors on constraints and negotiation strategies to participation in sports by other populations.

2.6 Relationship between sports participation constraints and negotiation strategies

According to Godbey, Crawford and Shen (2010), sports participation constraints and negotiation strategies are two inseparable concepts. Participation is dependent on the ability to negotiate constraints. Empirical studies have revealed that constraints influence participation preference, and sport experience (Godbey et al., 2010; Hubbard & Mannell, 2001; Tsai & Coleman, 2007).

Moreover, constraints are independent and follow a hierarchy that includes intrapersonal, interpersonal, structural constraints; with intrapersonal constraints being the most powerful and structural constraints are the least powerful (Crawford & Godbey 1987). Hubbard and Mannell (2001) examined the relationship between constraints, with negotiation tested using four models: 'independence', 'negotiation-buffer', 'perceived constraint-reduction' and 'constraint-effects-mitigation'. The constraint-effects-mitigation model, has been supported by Lyu and Oh (2015) and Son, et. al., (2008). They suggest that people have the capability to modify their activities when faced with constraints to be able to maintain their participation in sports through negotiation. The positive use of negotiation strategies is attributed to people's self-efficacy (Hubbard & Mannell, 2001; Loucks-Atkinson & Mannell, 2007). This is a very important psychological factor that involves the belief that one can successfully have control over challenges. Thus, belief in individuals' ability to

negotiate participation constraints can provide a benefit when struggling with difficulties in terms of organizing, planning, and participating in university sports. Most of the previous studies on constraints and negotiation strategies have supported the constraint-mitigation-effect model, with constraints having a positive relationship with negotiation strategies but also having a direct negative relationship with sports participation (Choi, Yoo, Park, & Greenwell, 2020; Covelli, Graefe, & Burns, 2007; Hubbard & Mannell, 2001; Oliver et al., 2019; White, 2008; Wilhelm et al., 2009). However, Wood (2011) found contrasting results in a student-focused constraint negotiation process study which supported the perceived-constraint-reduction model. This model postulates that negotiation has a reductive, and negative, relationship with constraints. The difference between Wood (2011) findings and those of other scholars may be influenced by Wood's relatively restricting the constraint and negotiation measures.

Other scholars have reported no significant relationship between constraints and negotiation strategies, where the two have independent and opposing effects on participation (Son et al., 2008). However, this may indicate that the negative and positive effects of sport participation constraints and negotiation strategies have effectively cancelled out one another. The lack of consensus among scholars may be potentially attributed to the variation in the contexts in which the studies have been undertaken.

The relationship between sports participation constraints and negotiation strategies appears to be somehow congruent, since specific negotiation strategies are directly related to certain constraints (Lee & Scott, 2009; Loucks-Atkinson & Mannell, 2007). For example, time management strategies could be used to alleviate lack of time (Lee

& Scott, 2009; Loucks-Atkinson & Mannell, 2007). Hubbard and Mannell (2001) carried out a test involving a group of constraint negotiation models which they theorized according to the findings of previous studies and found that the greatest support was leaning towards 'constraint effects mitigation model'. This explains the interrelationships that exist between participation constraint and negotiation strategies.

Previous studies on negotiation process assert that there is a significant relationship between constraints and negotiation strategies since they do not exist in isolation (Hubbard & Mannell, 2001; Lee & Scott, 2009; Loucks et al., 2007; White, 2008). They are closely interlinked and the effect of one brings about a chain reaction on the other (Crawford & Godbey, 1987; Godbey et al., 2010). For instance, intrapersonal constraints may cause the kind of relationship one shares with other people (Godbey et al., 2010). Other studies have called for further studies on the relationship between constraints and negotiation strategies (Loucks et al., 2007; Son et al., 2008).

In a study by Ma, et al., (2012), in testing the psychological well-being of Taiwanese college students, there was a significant relationship between constraints and negotiation strategies with regard to participation. This process was influenced by the psychological well-being dimensions such as self-acceptance and autonomy. In another study by Alexandris, Du, Funk, & Theodorakis, (2017), the impact of negotiation strategies on intention to continue participating in recreational skiing was studied. Findings of the study show that time management strategies and improving knowledge were found to be positively influencing the intention of participation.

Pelak, (2005) examined leisure constraints among adult women participating in soccer in Western Province South Africa. Results showed evidence of structural,

interpersonal, intrapersonal, and socio-cultural constraints. For example, women encountered discrimination because of participating in a traditionally male sport. They also experienced constraints in facilities, finances, equipment, coaches, transportation, lack of public support or media coverage, and time constraints caused by parenting and other errands. In terms of mitigating these constraints, participants reported mentoring young players as one negotiation strategy. It is in light to these prepositions that the current study was set to find out if the findings from a university setting will conform to findings from the previous studies from different settings.

2.7 Summary of literature review

Review of literature on constraints and negotiation strategies supports assertions that, student-athletes face various constraints as they participate in sports. When faced with constraints, they use negotiation strategies to overcome them (Beggs et al., 2005; Chung et al., 2013; Halforty & Radder, 2015; Ocal, 2014; Rintaugu et al., 2013; Wood, 2011; Yerlisu-Lapa, 2014; Young et al., 2003). The review of literature also showed that most of researchers had the assumption that constraints are consistently intrapersonal, interpersonal, or structural in different contexts. Identifying constraints and then overcoming them or providing ways or resources to navigate them appears to be a viable approach for enhancing participation in sports and associated benefits for university students. Unfortunately, from the existing literature there is a disjointed approach to sports participation constraints and negotiation strategies in universities.

Mostly constraints and negotiation strategies have been identified in separate analysis without explicit examination of the relationship between them, which this study sought to do. In addition, there were few studies on participation constraints and

negotiation strategies among university students in African setting and also limited studies that have explored sports matters in Kenyan universities (Kaimenyi & Rintaugu, 2011), hence arousing curiosity to investigate in Kenyan university setting. Most of the studies have focused on recreational and leisure sports leaving a significant gap to study constraints and negotiations in competitive sports.

CHAPTER THREE: METHODOLOGY

3.1 Research design

The study used a cross-sectional survey research design. Cross-sectional research, involves using different groups of individuals who differ in the variable of interest but share other characteristics (Gratton & Jones 2004). It also aims at generating knowledge about the amount of influence the independent variables have on the dependent variables (Gratton & Jones, 2004). Therefore, the design was appropriate since it allowed the researcher to gather information on sports participation constraints and negotiation strategies among student-athletes from different universities and enabled making inferences about the university student-athletes population in Kenya.

3.2 Study variables

The dependent variables included constraints and negotiation strategies, while the independent variables in the study included gender, year of study, type of sport, and type of university. The independent variables were measured at nominal level. While the dependent variables were weighted on 5-point Likert scale of 1 to 5 was used to where 1 was strongly disagree and 5 strongly agree. The scoring was used to determine the level of constraints or the use of negotiation strategies.

3.3 Location of the study

The study was conducted in public and private chartered universities in Kenya accredited by the Commission of University Education (CUE). Universities were selected because they provided an exceptional population of student-athletes from diverse backgrounds and different cultures and regions in the country. Additionally,

university setting is the last stage where students get an opportunity to engage in organized school-based sporting activities before getting into the job market.

3.4 Target population

The target population for the study included student-athletes from 31 public and 18 private universities (totaling to 49) in Kenya who were participating in the six selected sports in Kenya University Sports Association (KUSA) games. The selected sports which were considered in the study were selected on the basis of commonality in the universities. Based on participation in previous KUSA games the selected sports included four ball games; soccer, basketball, volleyball, and hockey, one individual sport either swimming or athletics one racquet sport, tennis, table tennis or badminton. This was depending on the sport offered at the university because not all universities had all the common KUSA sports offered during the time of data collection (Table 3.1). For the Universities to register with KUSA, each sport should have a minimum number of players as shown in table 3.1

Table 3. 1: Selected sports in KUSA games that were sampled for the study

Type of sport	Selected Sports	Number of Players (2 teams)	Total Players in 49 Universities
Ball games	Volleyball	20	980
	Basketball	20	980
	Soccer	30	980
	Hockey	30	980
Individual Sport	Athletics or Swimming	16	784
Racquet sports	Badminton or Tennis	10	490
Total		**126**	**6174**

3.5 Inclusion and exclusion criteria

Respondents who were included in the study had the following characteristics; students athletes registered in 2018/2019 academic year, the period when data was collected, students-athletes registered in the university teams in the selected KUSA sports. The study excluded student-athletes participating in other sports and recreational sports. Student-athletes who were older than 26 years were excluded as KUSA does not allow student-athletes older than 25 years to participate in their competitions, and finally student-athletes who had not attained the age of 18 years during the time of data collection were excluded due to consent reasons.

3.6 Sampling techniques and sample size

3.6. 1 Sampling techniques

Stratified random sampling was used to get respondents from different categories of university student-athletes. Therefore, the population was stratified into different strata of gender, type of university, KUSA conference, and selected sports. From each stratum a representative sample was randomly selected. In addition, purposive sampling was used to select the six sports depending on what was available in each selected University.

3.6.2 Sample size

The universities Appendix E were clustered into five categories using the KUSA conferences in the country Table 3.2. Stratified random sampling was used to select a representative sample of 4 (13%) public from the 31 public universities in Kenya during the time of the study and 3 (17%) private universities from the 18 private universities in Kenya during the time of study as shown in Table 3.2 Mugenda and

Mugenda (1999) states that 10% sample of the total population is sufficient for surveys.

Table 3. 2: Sample distribution of the universities

Kusa conference	**Universities**	**Sampled Universities**
Nairobi	21	3
Central	10	1
Western	7	1
Rift valley	8	1
Coast	3	1
Total	**49**	**7**

The number of respondents was determined using the online sample size calculator at 95% confidence level and 5% margin of error. This yielded to 362 respondents. However, the researcher increased the sample size by 10% to address the attrition rate and non-response of the student-athletes. This therefore raised the sample to 398 as shown in Table 3.3. The sample size for each university was 398 divided by 7 which gave approximately 57 respondents, in all the six selected sports. However, through proportionately division among the selected sports the sample raised to 58 respondents from every university. That is soccer 14 respondents, volleyball 10 respondents, basketball 10 respondents, hockey 14 respondents, swimming/ athletics 8 respondents' tennis/ badminton 2 respondents. Hence the total number of questionnaires administered was 406. Finally, proportionate sampling was then used to select male and female student-athletes from the selected sports to take part in the study.

Table 3. 3: Sample distribution of the respondents in the selected sports

Type of sport	Number of players	Proportion	Sample size from the 7 universities
Soccer	14	0.24	98
Volleyball	10	0.16	64
Basketball	10	0.16	64
Hockey	14	0.24	98
Swimming/ Athletics	8	0.12	48
Tennis/ Badminton	2	0.08	32
Total	**63**	**1**	**406**

3.7 Research instruments

The study used a questionnaire as the instrument for data collection. The instrument was adapted from (Wood, 2011 and Yerlisu-Lapa, 2014) (Appendix C). However, the instrument was modified and socio-cultural constraints were added in order to suit the study. It consisted of three sections. Section A captured demographic information of the respondents of gender, age, year of study, type of institution and the type of the sport. Section B had 30 items on constraints to sports participation and were weighted on a 5-point Likert scale of 1 to 5 where 1 was strongly disagree and 5 strongly agree. The scale represented nine (9) items for structural constraints, six (6) for interpersonal constraints, eleven (11) for intrapersonal constraints and four (4) for social-cultural constraints. Section C had 24 items on negotiation strategies to sports participation and were weighted on a 5-point Likert scale of 1 to 5 where 1 was never and 5 was very often. The scale represented six (6) items on intrapersonal negotiation strategies, five (5) items on interpersonal negotiation strategies, three (3) items on financial management strategies, four (4) items on skill acquisition strategies and finally six (6)

items on time management strategies. The instrument had an adequate reliability with coefficient alpha of 0.72 on the participation constraints scale while the negotiation strategies scale had a co-efficient of 0.89 (Wood, 2011; Yerlisu-Lapa, 2014)

3.8 Pre-testing of research instrument

The researcher pre-tested the tool before actual data collection. This was to test the validity and reliability of the research instrument. During the pre-test the questionnaires were distributed to student-athletes (n=36) participating in soccer (n=8), volleyball (n=4), basketball (n=6), hockey (n=8) swimming (n=6) and table tennis (n=4) from a randomly selected public university which was not included in the main study.

3.9 Validity and reliability of the instruments

Validity of the instrument was established through literature search, expert's opinion in the area of research methods and the supervisors' comments on the instrument which were infused in the questionnaire. The instrument adapted from Wood, (2011) and Yerlisu-Lapa, (2014) had an adequate reliability with 0.72 coefficient alpha on the participation constraints scale while the negotiation strategies scale had a co-efficient of 0.89. The reliability of the modified instrument was established using split-half technique. The instrument was administered to student-athletes (n=36) participating in the selected sports. The filled instruments were randomly split into two equal halves from each sport and the total scores computed and then correlated to determine the reliability coefficient. A correlation coefficient of 0.82 indicated consistency among the items in instrument as recommended by Mugenda and Mugenda (2003).

3.10 Data collection procedures

The researcher in consultation with the supervisors trained and inducted two research assistants. The researcher assessed whether the research assistants had understood the various aspect of research ethics during the pre-test. Upon approval by all the relevant authorities the researcher visited the sampled universities sports and games departments prior to the data collection. The researcher introduced himself with an introduction letter from Graduate school of Kenyatta University and National Commission for Science, Technology and Innovation (NACOSTI) approval and explained the purpose of the study to seek permission to carry out the study through a formal letter.

The researcher also sought for ethical review clearance from Kenyatta University Ethical Review Committee (KUREC) Appendix E. The sports and games departments gave the researcher the approval to conduct the study. Various coaches were introduced to the researcher by the game's tutors at the university. The coaches gave the researcher the training days and venues where the student-athletes meet, for planning for the actual data collection.

On the data collection days, the researcher together with the research assistant arrived at each of the university early. The researchers then waited for the student-athletes to proceed to the training venue during their training hours. At the venues, before the start of training, the coaches for the various sampled sports introduced the researchers who explained the purpose of the study to the student-athletes. The student-athletes were willing to take part in the study and the researcher made sure that they signed the consent forms first before distributing the self-administered questionnaires to them. The researcher and the assistant oversaw the questionnaire filling process and guided

the respondents where they need clarifications. All the questionnaires were collected after the student athletes were through with the filling process and the researcher thanked the student-athletes and the coach for their time and wished them well.

3.11 Data analysis and presentation

The collected data was cleaned, coded and entered into Statistical Package for Social Sciences (SPSS) version 22 for analysis. Tables, were used to present the obtained data. Descriptive statistics were used to generate means, and standard deviations for each item on the instrument. They were used to determine the constraints that affect participation in sports as well as the negotiation strategies used by student athletes. Additionally, descriptive statistics helped to determine the means and standard deviations among the different year of study and the type of sport in relation to constraints and negation strategies. Independent T-test was used to determine the significant mean differences between gender and type of institution based on the constraints and negotiation strategies. Independent T-test was appropriate because it is used to test for mean differences between two independent variables. One way Analysis of Variance (ANOVA) was used to determine whether there were significant differences in constraints and negotiation strategies based on year of study and type of sport. ANOVA was appropriately used because the independent variables were more than two that is four variables in the year of study and six for the type of sport. Any significant ratios were subjected to post- hoc test of Tukey Honestly Significant Difference (HSD) to trace the source of significant differences at alpha=0.05 level of significance. Lastly, linear regression analysis was appropriate for this study because it tests for the strength of association between two continuous variables of sports participation constraints and the negotiation strategies among student-athletes.

3.12 Logistical and ethical consideration

Kenyatta University Graduate School Board approved the study proposal Appendix F. Additionally, through a letter Appendix G they provided the research authorization introducing the researcher to necessary authorities. The study also sought ethical review clearance from Kenyatta University Ethical Review Committee (KUREC) Appendix E. Consequently, the researcher sought clearance form National Commission for Science, Technology and Innovation (NACOSTI) for authorization to conduct the study Appendix I. Research permit to collect data was then obtained from NACOSTI Appendix J. The researcher sought permission from the sampled universities through an official letter to the sports and games directorate informing them about the nature of the study and seeking permission to collect data Appendix A. Finally, the researcher sought informed consent from the participants and the purpose of the study was well stated and explained to avoid any misconceptions Appendix B. Respondents were not required to write their names on the questionnaires to maintain anonymity and they were assured of confidentiality.

CHAPTER FOUR: RESEARCH FINDINGS

4.0 Introduction

The purpose of this study was to establish the sports participation constraints and the negotiation strategies among university student-athletes in selected sports in Kenyan Universities. This chapter presents results of the study in line with the study objectives. It first presents the demographic characteristics of the respondents, the descriptive statistics on sports participation constraints and the negotiation strategies. The second part represents the inferential statistics on the different demographic characteristics in relation to sports participation constraints and negotiation strategies and the testing of the hypotheses. In, addition, the relationship between constraints and negotiation strategies is presented.

4.1 Demographics characteristics of the respondents

The study sought to determine the demographic characteristics of the study respondents which included gender, year of study, type of university, and the type of sport. The results are as presented in Table 4.1

Table 4. 1: Demographic characteristics of study respondents

Variable	Options	Frequency	Percentage
Gender	Male	198	50.1%
	Female	191	40.9%
	Total	**389**	**100%**
Year of study	1st year	61	15.7%
	2nd year	112	28.8%
	3rd year	123	31.6%
	4th year	93	23.9%
	Total	**389**	**100%**
Type of institution	Private university	167	42.9%
	Public university	222	57.1%
	Total	**389**	**100%**
Type of sport	Soccer	93	23.9%
	Volleyball	67	17.2%
	Hockey	78	20.1%
	Basketball	54	13.9%
	Tennis/badminton	42	10.8%
	Swimming/athletics	55	14.1%
	Total	**389**	**100%**

Data in Table 4.1 show that 198, (50.9%) were males, while 191, (49.1%) were females. In relation to year of study, most of student-athletes 123, (31.6%) were in their third year of study, followed by 112, (28.8%) who were in second year. Student-athletes in fourth years were 93, (23.9%) while those in their first year were 61, (15.7%). Additional Data show that majority of the respondents were enrolled in public universities 222, (57.1%), while those in private universities were 167, (42.9%). With regard to type of sport, most of the student-athletes participated in soccer 93, (23.9%), followed by hockey 78, (20.1%), volleyball 67, (17.2%),

swimming/athletics 55, (14.1%), basketball 54, (13.9%) and tennis and badminton being the least represented at 42, (10.8%).

4.2 Descriptive statistics on constraints facing the student athletes

The study set to find out the constraints to sports participation among university student-athletes in Kenya. Constraints were grouped into four categories of structural, intrapersonal, interpersonal and socio-cultural and their responses are presented in Table 4.2.

Table 4. 2: Structural constraints affecting participation in sports

Structural Constraints	**Mean**	**SD**
The sports equipment that I need for my sport are too expensive	4.46	0.65
The sports programs for my sport are poorly organized and managed	4.43	0.69
Sports facilities and equipment for my sport are inadequate	4.35	0.69
University sports facilities and equipment are poorly kept and maintained	4.30	0.77
Lack of modern equipment at the university limits my participation	4.28	0.72
Sports facilities for my sport are always crowded	4.26	0.80
Opportunities to participate in my sport are not adequate	4.21	0.76
Transport to my sport's facilities takes a lot of time and is expensive	4.11	0.81
Inadequate coaching services at the university limit my participation	4.10	0.83
Average	**4.28**	**0.75**

Results in Table 4.2 show that within the category of structural constraints the high cost of sports equipment, had the highest means and standard deviations (M= 4.46,

SD = 0.65) followed by sports programs being poorly organized and managed (M= 4.43, SD = 0.69) and university sport facilities and equipment are poorly kept and maintained (M=4.3,SD=.77.The structural constraints with the lowest means and standard deviations were inadequate coaching services at the university (M= 4.10, SD = 0.83),transport to sport facilities takes a lot of time and expensive (M=4.11, SD= 0.81) and opportunities to participate in my sport are not adequate (M=4.21, SD= 0.76) The interpersonal constraints faced by the student athletes are presented in Table 4.3.

Table 4. 3: Interpersonal constrains among university students

Interpersonal Constraints	**Mean**	**SD**
I lack encouragements from friends and family to enable me participate	4.29	0.81
Lack of trained coaches at the university limit my participation	4.13	0.81
Parental / Guardian pressure on my studies limits my participation	4.05	0.89
My friends do not have time to participate in sports with me	4.04	0.87
Fear of failure or coaches blames limits my participation	3.98	0.83
I do not have anyone to participate with in my sport	3.87	0.99
Average	**4.06**	**0.87**

Data on interpersonal constraints as shown in Table 4.3 reveal that lack of encouragements from friends and family inhibited them from participating in sports had the highest means and standard deviations (M= 4.29, SD = 0.81). Fear of failure and blame from coaches had (M= 3.98, SD = 0.83). Other interpersonal constraints that the respondents reported included lack of trained coaches (M= 4.13, SD = 0.81), friends not having time to participate with (M= 4.04, SD = 0.87) and lack of people to participate with (M= 3.87, SD = 0.99). On the other hand, a proportion of the

respondents (M= 4.04, SD = 0.87) reported that friends don't have time to participate in sports with them. The intrapersonal constraints faced by the student –athletes are presented in Table 4.4

Table 4. 4: Intrapersonal constraints influencing sports participation

Intrapersonal Constraints	**Mean**	**SD**
I do not like to participate during adverse weather conditions	4.25	0.77
I lack enough time due to study commitment.	4.17	0.79
I do not like to interrupt my routine with sports	4.10	0.88
Participation is very tiring and at times I am too tired	4.08	0.85
I lack the required fitness levels to participate in sports	4.05	0.91
I have put excessive attention to my studies and neglect sports	4.04	0.88
I have health complications that limit my participation in sports	4.03	0.91
I lack the required skills to enable me participate in my sport	3.96	0.92
I fear of sustaining injuries from participating in my sport	3.95	0.92
Lack of participation because sports at time are too stressful	3.95	0.90
I am always too tired to participate in my sport	3.93	0.97
Average	**4.05**	**0.89**

Results in Table 4.4 indicate that adverse weather condition including hot or humid or cold weather conditions inhibited participation in sports had the highest mean (M = 4.25, SD = 0.77) followed by lack enough time due to study commitment (M = 4.17, SD = 0.79). Respondents also reported that they did not want to interrupt their routine with sports (M = 4.10, SD = 0.88) Other respondents reported that they were too tired to participate in their respective sports (M = 3.93, SD = 0.97). Participants also reported that lack of required skills (M = 3.96, SD = 0.92) and fear of sustaining

injuries constrained them from participating in their preferred sports (M = 3.95, SD = 0.92). Other intrapersonal constraints the respondents reported that inhibited their participation included; health complications (M = 4.03, SD = 0.91), lack of the required fitness levels (M = 4.05, SD = 0.91), and stressful nature of competitive sports (M = 3.95, SD = 0.90). Being too tired to participate was the least experienced constraint (M = 3.93, SD = 0.97). The social cultural constraints faced by the student athletes are presented in Table 4.5

Table 4. 5: Socio-cultural constraints inhibiting participation in sports

Socio-cultural Constraints	**Mean**	**SD**
I lack time to participate due to family obligations	4.05	0.89
A lady's place is in the kitchen and not the field	2.79	1.38
Lack of participation in my sport due to cultural limitations	2.78	1.15
Sports is a man's territory and not the place for a woman	2.73	1.37
Average	**3.09**	**1.20**

Table 4.5 shows that respondents reported lack of time to participate due to family obligations as the major socio- cultural constraint (M = 4.05, SD = 0.89), followed by a lady's place is in the kitchen and not the field (M = 2.79, SD = 1.38) and lack of participation in my sport due to cultural limitations (M = 2.78, SD = 1.15). The socio-cultural constraints with the lowest mean and standard deviation was that sport is a man's territory and not the place for a woman (M = 2.73, SD = 1.37). The constraints faced by the student athletes based on their gender are presented in Table 4.6.

Table 4. 6: Descriptive statistics on gender and sports participation constraints

	Structural constraints		Interpersonal constraints		Intrapersonal constraints		Sociocultural constraints	
Gender	**M**	**SD**	**M**	**SD**	**M**	**SD**	**M**	**SD**
Female	4.50	0.26	4.25	0.27	4.10	0.36	2.40	0.84
Male	4.24	0.29	4.01	0.21	3.87	0.38	2.35	0.86
Average	**4.37**	**0.28**	**4.13**	**0.24**	**3.99**	**0.37**	**2.38**	**0.85**

Results in Table 4.6 show that female student-athletes had the highest means in all the constraints in comparison to male student-athletes. However, structural constraints had the highest means, female (M = 4.50, SD = 0.26) and male student-athletes (M = 4.24, SD = 0.29). Socio-cultural constraints had the lowest means female student-athletes (M = 2.40, SD = 0.84) and male student-athletes (M = 2.35, SD = 0.86). The constraints faced by the student athletes from the various year of study are presented in Table 4.7

Table 4. 7: Descriptive statistics on year of study and constraints

	Structural constraints		Interpersonal constraints		Intrapersonal constraints		Sociocultural constraints	
Year of study	**M**	**SD**	**M**	**SD**	**M**	**SD**	**M**	**SD**
1st year	4.39	0.30	4.00	0.44	4.01	0.33	3.08	0.84
2nd year	4.23	0.27	4.01	0.52	4.30	0.36	3.16	0.93
3rd year	4.12	0.29	4.04	0.46	4.08	0.40	3.03	0.79
4th year	4.26	0.25	4.11	0.42	4.04	0.35	3.09	0.84
Average	**4.25**	**0.28**	**4.06**	**0.47**	**4.04**	**0.37**	**3.09**	**0.85**

Results in Table 4.7 show that based on the year of study of the respondents' structural constraints had the highest means and standard deviations (M = 4.25, SD = 0.28). Sociocultural constraints had the lowest means and standard deviations (M = 3.09, SD = 0.85). In regard to constraints and level of study, structural constraints, first years had the highest mean (M = 4.39, SD = 0.30) followed by those in Fourth years (M = 4.26, SD = 0.25), second years (M = 4.23, SD = 0.27) while those in Third years had the lowest mean (M = 4.12, SD = 0.29). For the interpersonal constraints, fourth years had the highest mean (M = 4.11, SD = 0.42), followed by third years (M = 4.04, SD = 0.46), second years (M = 4.01, SD = 0.52) and lastly first years (M = 4.00, SD = 0.44). As for intrapersonal constraints, those in second year of study had the highest mean and standard deviation (M = 4.30, SD = 0.36) followed by those in their third year of study followed with (M = 4.08, SD = 0.40), while those in first year of study had the lowest mean (M = 4.01, SD = 0.33). Lastly sociocultural constraints registered the highest mean and standard deviation in second years (M = 3.16, SD = 0.93) and the lowest mean was from third years (M = 3.03, SD = 0.79). The constraints faced by the student athletes from the various types of university are presented in Table 4.8

Table 4. 8: Descriptive statistics on type of university and constraints

	Structural constraints		**Interpersonal constraints**		**Intrapersonal constraints**		**Sociocultural constraints**	
Type of University	**M**	**SD**	**M**	**SD**	**M**	**SD**	**M**	**SD**
Private university	4.26	0.27	4.08	0.46	4.05	0.35	3.04	0.83
Public university	4.08	0.32	3.96	0.36	4.03	0.37	3.12	0.86
Average	**4.17**	**0.29**	**4.02**	**0.41**	**4.04**	**0.36**	**3.08**	**0.85**

Results in Table 4.8 show that student-athletes from public and private universities reported structural constraints as the highest limiting factors towards sport participation, with private universities having a mean and standard deviation (M = 4.26, SD = 0.27), while public universities (M = 4.08, SD = 0.32). The structural constraints were followed by intrapersonal constraints where student athletes from public universities were more constraints (M = 4.05, SD = 0.35) compared to their fellow student-athletes from private universities (M = 4.03, SD = 0.37). respondents from private universities were more constrained by interpersonal constraints (M = 4.08, SD = 0.46) compared to those in public universities (M = 3.96, SD = 0.36). Lastly, socio-cultural constraints had the lowest means and standard deviations as reported by student-athletes from both public universities (M = 3.12, SD = 0.86) and private universities (M = 3.04, SD = 0.83). The constraints faced by the student athletes from the various types of sport are presented in Table 4.9.

Table 4. 9: Descriptive statistics on type of sport and constraints

	Structural constraints		**Interpersonal constraints**		**Intrapersonal constraints**		**Sociocultural constraints**	
Type of Sport	**M**	**SD**	**M**	**SD**	**M**	**SD**	**M**	**SD**
Soccer	4.30	0.20	4.31	0.28	4.26	0.20	3.86	0.62
Volleyball	4.18	0.32	3.76	0.49	3.86	0.36	2.56	0.51
Hockey	4.29	1.90	4.30	0.25	4.19	0.18	2.48	0.59
Basketball	4.38	0.27	4.37	0.24	4.27	0.26	3.91	0.60
Tennis/ Badminton	4.30	0.33	3.66	0.41	3.75	0.37	2.57	0.60
Swimming / Athletics	4.18	0.32	3.63	0.38	3.68	0.33	2.86	0.51
Average	**4.27**	**0.56**	**4.01**	**0.34**	**4.00**	**0.28**	**3.04**	**0.57**

For all the sports, structural constraints had the highest means (M = 4.27, SD = 0.56), interpersonal constraints (M = 4.01, SD = 0.34), followed by intrapersonal constraints (M = 4.00, SD = 0.28) and lastly social cultural constraints (M = 3.04, SD = 0.57). Further, the results indicated that basketball had the highest means for all the constraints, structural (M = 4.38, SD = 0.27), interpersonal (M = 4.37, SD = 0.24), intrapersonal (M = 4.27, SD = 0.26), and finally socio cultural (M = 3.91, SD = 0.60). In addition, swimming / athletics had the lowest mean in all the constraints subscales, structural (M = 4.18, SD = 0.32), interpersonal (M = 3.63, SD = 0.38), intrapersonal (M = 3.63, SD = 0.33).

4.3 Descriptive statistics on negotiation strategies

The study sought to find out the negotiation strategies used by Kenyan university student-athletes to enhance sports participation. Descriptive statistics were conducted to determine the negotiation strategies used by the respondents to ensure their participation in sports. Results are presented in Table 4.10

Table 4. 10: Intrapersonal strategies among university student-athletes

Intrapersonal strategies	**Mean**	**SD**
I purposely participate in activities that are not very competitive	4.18	0.77
I think about how important my sport is to me	4.15	0.87
I try to eat right and sleep more so that I don't feel tired to participate	4.13	0.81
I try to be organized to manage my academics and sports	4.08	0.85
I try to improve my physical fitness so that I can participate	4.04	0.88
I wear protective/safety equipment to prevent injuries	4.02	0.86
Average	**4.10**	**0.84**

Table 4.10 show that respondents purposely participate in activities that are not very competitive, which had the highest mean and standard deviation (M = 4.18, SD = 0.77). Respondents wearing protective/safety equipment to prevent injuries was the intrapersonal strategy that had the lowest means and standard deviations (M = 4.02, SD = 0.86). The interpersonal strategies utilized by student-athletes are presented in Table 4.11.

Table 4. 11: Interpersonal strategies used by university sports athletes.

Interpersonal strategies	**Mean**	**SD**
I convince my parents on the benefits of sports to allow me play	4.17	0.83
I encourage my friends to participate in sports with me	4.12	0.85
I ignore what the society and other people think of me	4.11	0.86
I try to meet people with similar sports interests	4.07	0.82
I choose to participate when the facilities are not crowded.	3.96	0.84
Average	**4.09**	**0.84**

Results in table 4.11 on interpersonal strategies indicated a high mean and standard deviation (M = 4.17, SD = 0.83) whereby the respondents convince their parents on the benefits of sports in order to allow them to participate. The strategy with the lowest means and standard deviations was that the respondents chose to participate when the facilities were not crowded. The financial management strategies used by student-athletes are presented in Table 4.12.

Table 4. 12: Financial Management strategies used by university sports athletes.

Financial Management strategies	Mean	SD
I budget my money to fit my sports activities	4.21	0.83
I improvise equipment and/or cloths I have for my sport	3.94	0.87
I borrow equipment from other students so that I can participate	3.92	0.85
Average	**4.02**	**0.85**

Results from Table 4.12 show that respondents' budgeting their money to fit their sports activities was the financial management strategy which had the highest means and standard deviations (M = 4.21, SD = 0.83). The least strategy used was borrowing equipment from other students in order to participate (M = 3.92, SD = 0.85). The skill acquisition strategies utilized by university student-athletes are presented in Table 4.13

Table 4. 13: Skill Acquisition strategies used by university student-athletes

Skill Acquisition strategies	Mean	SD
If I'm not skilled, I swallow my pride and try my best	4.14	0.84
I practice regularly to improve my skills	4.11	0.80
If I'm not skilled, I seek for help with the required skills.	3.97	0.87
I try to learn new skills to help me participate better in my sport	3.88	0.92
Average	**4.03**	**0.85**

Results in Table 4.13 indicate that the highest scored skill acquisition strategy was trying their best (M = 4.14, SD = 0.84), with practicing regularly coming second (M = 4.11, SD = 0.80). Learning new skills to help the respondents practice better in their sport was least used as a strategy (M = 3.88, SD = 0.92) The time management strategies used by student-athletes are presented in Table 4.14

Table 4. 14: Time Management strategies used by university student-athletes.

Time Management strategies	Mean	SD
I plan ahead of things and set aside time for my sport	4.07	0.87
I participate in my sport closer to where I live	4.06	0.91
I attend events that fit with my schedule	3.99	0.86
I cut short time for other leisure activities to have time for sport	3.93	0.96
I stay up late or get up early to compensate time spent in sports	3.90	0.84
I finish assignments early in order to have time for sports	3.86	0.77
Average	**3.97**	**0.87**

Results on time management strategies as shown in table 4.14 indicate that, planning ahead of things and setting aside time for sports had the highest mean and standard deviation (M = 4.07, SD = 0.87) followed by participating in sports closer to where the respondents lived (M = 4.06, SD = 0.91). On the other hand, cutting short time for other leisure activities to have time for sports (M = 3.93, SD = 0.96), staying up late or getting up early to compensate time spent in sports (M = 3.90, SD = 0.84). However, finishing assignments early in order to have time for sports (M = 3.86, SD = 0.77) was least used as a time management negotiation strategy. The negotiation strategies utilized by student-athletes based on gender are presented in Table 4.15.

Table 4. 15: Descriptive statistics on gender and negotiation strategies

Negotiation Strategies	Gender	Mean	SD
Intrapersonal Strategies	Female	4.56	0.44
	Male	4.08	0.38
Time Management	Female	4.21	2.69
	Male	4.11	2.72
Interpersonal Strategies	Female	4.31	2.25
	Male	4.57	2.14
Skill Acquisition	Female	3.69	1.98
	Male	3.99	2.02
Financial Management	Female	3.76	1.77
	Male	3.54	1.65

Results from Table 4.15 indicate that there were mixed results on the use of negotiation strategies. Female athletes had higher means that the male athletes in time management strategies (Female = 4.21, Male = 4.11), financial management strategies (Female = 3.76, Male = 3.54) and intrapersonal strategies (Female = 4.56, Male =4.08). On the other hand, male student athletes had higher means in skill acquisition strategies (Female = 3.69, Male = 3.99) and finally interpersonal strategies (Female = 4.31, Male = 4.57). The negotiation strategies utilized by student-athletes with regard to their year of study are presented in Table 4.16.

Table 4. 16 Descriptive statistics on year of study and negotiation strategies

	Intrapersonal strategies		**Interpersonal strategies**		**Financial management**		**Skill acquisition**		**Time management**	
Year of study	**M**	**SD**	**M**	**SD**	**M**	**SD**	**M**	**SD**	**M**	**SD**
1st year	4.09	0.44	4.09	0.43	4.08	0.49	3.93	0.56	4.06	0.39
2nd year	4.13	0.43	4.10	0.42	4.10	0.55	4.09	0.47	4.08	0.46
3rd year	4.10	0.47	4.07	0.48	4.05	0.61	4.08	0.53	4.01	0.43
4th year	4.07	0.41	4.08	0.42	4.20	0.56	4.01	0.44	4.07	0.50
Average	**4.10**	**0.44**	**4.08**	**0.44**	**4.11**	**0.55**	**4.04**	**0.49**	**4.05**	**0.45**

Results as shown in table 4.16 indicated that financial management strategies had the highest mean (M = 4.11, SD = 0.55), while skill acquisition strategies had the lowest mean (M = 4.04, SD = 0.49). Based on the level of study and negotiation strategies of intrapersonal strategies second years had the highest mean (M = 4.13, SD = 0.43), while fourth years had the lowest means (M = 4.07, SD = 0.41). Regarding the interpersonal strategies, second years had the highest mean (M = 4.10, SD = 0.42) while third years had the lowest mean (M = 4.07, SD = 0.48). For financial management, fourth years had the highest mean (M = 4.20, SD = 0.56) while third year had the lowest mean (M = 4.05, SD = 0.61). As for skill acquisition, second years had the highest mean (M = 4.09, SD = 0.47) while first years had the lowest means (M = 3.93, SD = 0.56). On time management strategies, second years had the highest mean (M = 4.08, SD = 0.46) while third years had the lowest mean (M = 4.01, SD = 0.43). The negotiation strategies utilized by student-athletes with regard to their type of university are presented in Table 4.17.

Table 4. 17: Descriptive statistics on type of university and negotiation strategies

Negotiation Strategies	Type of Institution	Mean	SD
Intrapersonal Strategies	Private university	4.01	0.48
	Public university	4.11	0.41
Time Management	Private university	4.09	0.45
	Public university	4.03	0.44
Interpersonal Strategies	Private university	4.18	0.45
	Public university	4.02	0.43
Skill Acquisition	Private university	4.03	0.54
	Public university	4.45	0.46
Financial Management	Private university	4.14	0.60
	Public university	4.05	0.54

Results in Table 4.17 indicate that there were mixed results with regard to the use of negotiation strategies and nature of university. Student-athletes from private universities had higher means and standard deviations than student-athletes from public universities in time management strategies (Private = 4.09, Public = 4.03), financial management strategies (Private = 4.14, Public = 4.05) and interpersonal strategies (Private = 4.18, Public =4.02). On the other hand, student-athletes from public universities had higher means and standard deviations in skill acquisition strategies (Public = 4.45, Private = 4.03) and intrapersonal strategies (Public = 4.11, Private = 4.01). The negotiation strategies utilized by student-athletes with regard to their type of sport are presented in Table 4.18.

18: Descriptive statistics on type of sport and negotiation strategies

	Intrapersonal strategies		Interpersonal strategies		Financial management		Skill acquisition		Time management	
Type of Sport	**M**	**SD**	**M**	**SD**	**M**	**SD**	**M**	**SD**	**M**	**SD**
Soccer	4.36	0.24	4.29	0.29	4.33	0.35	4.26	0.32	4.32	0.27
Volleyball	3.69	0.37	3.74	0.38	3.82	0.65	3.78	0.56	3.70	0.41
Hockey	4.34	0.29	4.32	0.27	4.38	0.38	4.23	0.30	4.22	0.32
Basketball	4.39	0.24	4.38	0.31	4.39	0.34	4.30	0.32	4.38	0.26
Tennis/ Badminton	3.82	0.39	3.78	0.39	3.68	0.55	3.77	0.52	3.87	0.42
Swimming / Athletics	3.75	0.38	3.79	0.45	3.72	0.60	3.69	0.57	3..64	0.41
Average	**4.07**	**0.31**	**4.06**	**0.35**	**4.05**	**0.48**	**4.04**	**0.43**	**3.42**	**0.35**

Results in Table 4.18 show that for all the sports, intrapersonal strategies had the highest means and standard deviations (M = 4.07, SD = 0.31). Further, the results indicated that basketball had the highest means and standard deviations for all the strategies, such that intrapersonal strategies (M = 4.39, SD = 0.24), interpersonal strategies (M = 4.38, SD = 0.31), financial management strategies (M = 4.39, SD = 0.34), skill acquisition (M = 4.30, SD = 0.32) and time management strategies (M = 4.38, SD = 0.26).

4.4 Inferential statistics on sports participation constraints based on respondents' demographic characteristics.

The study determined whether there were significant differences in sports participation constraints based on gender, year of study, type of university, and type of sport among university student athletes in Kenya.

4.4.1 Inferential statistics on respondents' gender and constraints

Independent sample t-tests were carried out to assess whether there were significant differences in the mean scores between male and female athletes on the four grouped constraints. Results are presented Table 4.19

Table 4. 19: Independent T-test on Gender and Sports Participation Constraints

Constraints	Gender	Mean	SD	T-test	Sig
Structural	Female	4.50	0.26	-2.21	0.03
Constraints	Male	4.24	0.29		
Interpersonal	Female	4.25	0.27	1.14	0.02
Constraints	Male	4.01	0.21		
Intrapersonal	Female	4.10	0.36	0.52	0.60
Constraints	Male	3.87	0.38		
Sociocultural	Female	2.40	0.84	-0.05	0.95
Constraints	Male	2.35	0.86		

Results in Table 4.19 show that female athletes had higher means than male athletes in all the constraints. T-test results indicated that these differences were significant between male and female student-athletes in regard to structural constraints, ($t = -2.21$, $p=0.03$) and interpersonal constraints $t = 1.14$, $p = 0.02$). Therefore, the null hypothesis that there was no significant difference between male and female student athletes regarding constraints to sport participation was rejected.

4.4.2 Inferential statistics on year of study and sports participation constraints

One-way ANOVA was conducted to assess whether there were significant mean differences of respondents between year of study and sports participation constraints and the results are shown in table 4.20.

Table 4. 20: One-way ANOVA on year of study and constraints

	Structural constraints		Interpersonal constraints		Intrapersonal constraints		Sociocultural constraints	
Year of study	**F = 0.43**		**F = 0.94**		**F = 0.77**		**F = 0.52**	
	M	SD	M	SD	M	SD	M	SD
1st year	4.39	0.30	4.00	0.44	4.01	0.33	3.08	0.84
2nd year	4.23	0.27	4.01	0.52	4.30	0.36	3.16	0.93
3rd year	4.12	0.29	4.04	0.46	4.08	0.40	3.03	0.79
4th year	4.26	0.25	4.11	0.42	4.04	0.35	3.09	0.84
Average	**4.25**	**0.28**	**4.06**	**0.47**	**4.04**	**0.37**	**3.09**	**0.85**

The results indicated that there was a statistically significant difference between constraints and year of study (F = 0.43 P = < 0.05). Tukey's (HSD) post hoc test revealed that structural constraints were statistically significant difference between first year (M = 4.39, SD = 0.30) and third years (M = 4.12, SD = 0.29) The findings on intrapersonal constraints indicated that there was a significant difference (F = 0.77 P = < 0.05) between means of second years (M = 4.30, SD = 0.36) and that of first years (M = 4.01, SD = 0.33). This therefore indicates the there was a significant difference between constraints and year of study. Therefore, the null hypothesis that there would be no significant difference between constraints and year of study was rejected.

4.4.3 Inferential statistics on type of institution and constraints

Independent sample t-test was carried out to determine the mean differences between public and private universities and sports participation constraints. Results are shown in the Table 4.21

Table 4. 21: Independent T-test on constraints and type of institution

Constraints	Type of Institution	Mean	SD	T-test	Sig
Structural	Private university	4.26	0.27	0.39	0.01
Constraints	Public university	4.08	0.32		
Interpersonal	Private university	4.08	0.46	0.60	0.54
Constraints	Public university	3.96	0.36		
Intrapersonal	Private university	4.05	0.35	0.69	0.03
Constraints	Public university	4.03	0.37		
Sociocultural	Private university	3.04	0.83	-0.71	0.47
Constraints	Public university	3.12	0.86		

The results from table 4.21 indicate that student-athletes from private universities were more constrained than student-athletes from the public universities. The t-test results showed that there was a significant difference between respondents in public and private universities in terms of structural constraints (t=0.39, p=0.01) and intrapersonal constraints (t = 0.69, p = 0.03). Hence, the null hypothesis that there were no significant differences between public and private university regarding constraints is therefore rejected.

4.4.4 Mean differences between type of sport and constraints

ANOVA was conducted to test the mean differences between the type of sport and constraints. The results are as shown in Table 4.22

Table 4. 22: One way ANOVA on type of sport and constraints

Type of sport	Structural constraints		Interpersonal constraints		Intrapersonal constraints		Sociocultural constraints	
	F = 4.38		**F = 60.12**		**F= 49.74**		**F = 91.11**	
	M	SD	M	SD	M	SD	M	SD
Soccer	4.30	0.20	4.31	0.28	4.26	0.20	3.86	0.62
Volleyball	4.18	0.32	3.76	0.49	3.86	0.36	2.56	0.51
Hockey	4.29	1.90	4.30	0.25	4.19	0.18	2.48	0.59
Basketball	4.38	0.27	4.37	0.24	4.27	0.26	3.91	0.60
Tennis/ Badminton	4.30	0.33	3.66	0.41	3.75	0.37	2.57	0.60
Swimming / Athletics	4.18	0.32	3.63	0.38	3.68	0.33	2.86	0.51
Average	**4.27**	**0.56**	**4.01**	**0.34**	**4.00**	**0.28**	**3.04**	**0.57**

One-way ANOVA was conducted to determine the mean differences among the constraints based on the type of sport. The findings indicate that there were statistically significant mean differences ($F=4.38$, $p<0.05$) among the different types of sport and structural constraints. Tukey Honestly Significant Difference (HSD) Post Hoc analysis indicated that basketball players were the most constrained while volleyball players were the least constrained. Similar findings were evident in interpersonal constraints showing a statistically significance differences ($F=4.38$, $p<0.05$) among the different types of sport. For instance, Tukey (HSD) Post Hoc analysis shows that there was a statistically significant difference between tennis/badminton and In such a case, the findings in this section illustrate that

tennis/badminton players were the most constrained while basketball players were the least.

The results on intrapersonal constraints show that there were statistically significance differences ($F=49.74$, $p<0.05$) in the mean of the student athletes according to the type of sport they participated. The most constrained sport was Tennis/Badminton while basketball was the least constrained. In regard to socio-cultural constraints, results indicate that hockey players were the most constrained ($F=91.11$, $p<0.05$) whereas basketball was the least. There was a statistically significant mean difference ($F=91.11$, $p<0.05$) among hockey, volleyball, tennis/badminton, and swimming/athletics. This therefore indicates the there was a significant difference between constraints and type of sports, hence the null hypothesis that there would be no significant difference between constraints and type of sport was rejected.

4.5 Inferential statistics on sports participation negotiation strategies based on respondents' demographic characteristics.

The study determined whether there was a significant difference in sports participation negotiation strategies based on gender, year of study, type of university, and type of sport among university student-athletes in Kenya.

4.5.1 Inferential statistics on gender and negotiation strategies

Independent t-test analysis was carried out to get the mean differences between gender on the negotiation strategies that were grouped into five categories as shown in Table 4. 23

Table 4. 23: Independent T-test on negotiation strategies and gender

Negotiation Strategies	Gender	Mean	SD	T-test	Sig
Intrapersonal Strategies	Female	4.56	0.44	-0.88	0.03
	Male	4.08	0.38		
Interpersonal Strategies	Female	4.31	0.28	-0.20	0.83
	Male	4.57	0.45		
Financial Management	Female	3.76	0.35	-0.50	0.04
	Male	3.54	0.65		
Skill Acquisition	Female	3.69	0.68	0.05	0.02
	Male	3.99	0.28		
Time Management	Female	4.21	0.69	-0.68	0.49
	Male	4.11	0.72		

Table 4.24 indicates that there were mixed results on the use of negotiation strategies. Female athletes had higher means that male athletes in strategies of time management (Female = 4.21, Male = 4.11), financial management (Female = 3.76, Male = 3.54) and intrapersonal strategies (Female = 4.56, Male =4.08). On the other hand, male student athletes had higher means in skill acquisition (Female = 3.69, Male = 3.99) and interpersonal strategies (Female = 4.31, Male = 4.57). However, the t-test results showed that there was a significant difference between the mean of male and female athletes in skill acquisition (t= 0.05, p = 0.02), financial management (t= -0.50, p = 0.04) and intrapersonal (t= -0.88, p = 0.03). Hence, the null hypothesis that there were no significant differences between male and female student athletes regarding negotiation strategies was rejected.

4..5.2 Inferential statistics on year of study and negotiation strategies

ANOVA was carried out to determine the mean differences of negotiation strategies among students-athletes based on their year of study. The results are as shown in Table 4.24

Table 4. 24: One-way ANOVA on year of study and negotiation strategies

	Intrapersonal strategies		Interpersonal strategies		Financial management		Skill acquisition		Time management	
Year of study	**F = 0.31**		**F = 0.13**		**F = 1.34**		**F = 1.66**		**F = 0.56**	
	M	SD	M	SD	M	SD	M	SD	M	SD
1st year	4.09	0.44	4.09	0.43	4.08	0.49	3.93	0.56	4.06	0.39
2nd year	4.13	0.43	4.10	0.42	4.10	0.55	4.09	0.47	4.08	0.46
3rd year	4.10	0.47	4.07	0.48	4.05	0.61	4.08	0.53	4.01	0.43
4th year	4.07	0.41	4.08	0.42	4.20	0.56	4.01	0.44	4.07	0.50
Average	**4.10**	**0.44**	**4.08**	**0.44**	**4.11**	**0.55**	**4.04**	**0.49**	**4.05**	**0.45**

The findings indicate that there were no statistically significant differences in the year of study and the use of negotiation strategies; interpersonal strategies ($F=0.31$, $p>0.05$), intrapersonal strategies ($F=0.13$, $p>0.05$), financial management strategies ($F=1.34$, $p>0.05$), skill acquisition strategies ($F=1.66$, $p>0.05$) and time management strategies ($F=0.56$, $p>0.05$). Tukey's (HSD) Post Hoc analysis indicated that there were no significant differences among the student athletes in overcoming sports participation constraints at the selected universities. Therefore, the null hypothesis that there would be no significant difference between constraints and year of study was accepted.

4.5.3 Inferential statistics on type of institution and negotiation strategies

Independent t-test analysis was conducted to assess whether there were significant differences in the means and standard deviations on negotiation strategies of student – athletes from private and public universities. Results are shown in Table 4.25.

Table 4. 25: Independent T-test on type of institution and strategies

Negotiation Strategies	Type of Institution	Mean	SD	T-test	Sig
Intrapersonal	Private university	4.01	0.48	-0.46	0.65
Strategies	Public university	4.11	0.41		
Interpersonal	Private university	4.18	0.45	-0.23	0.03
Strategies	Public university	4.02	0.43		
Financial	Private university	4.14	0.60	-1.42	0.00
Management	Public university	4.05	0.54		
Skill Acquisition	Private university	4.03	0.52	-0.31	0.75
Strategies	Public university	4.45	0.46		
Time management	Private university	4.09	0.45	1.33	0.02
Strategies	Public university	4.03	0.44		

Results in Table 4.25 shows there were significant mean differences in the following negotiation strategies, time management, ($t = 1.33$, $p = 0.02$), financial management, ($t = -1.42$, $p = 0.00$) and interpersonal ($t= -0.23$, $p=0.03$). This implies that student-athletes from private universities utilized time management, financial management and interpersonal negotiation strategies more than student-athletes from the public universities. Therefore, the null hypothesis that there would be no significant

difference between public and private university and negotiation strategies was rejected.

4.5.4 Inferential statistics on type of sport and negotiation strategies

The study tested the mean differences between type of sport and the negotiation strategies the student athletes employed to overcome the constraints. The results are presented in Table 4.26.

Table 4. 26: One-way ANOVA on type of sport and negotiation strategies

	Intrapersonal strategies		Interpersonal strategies		Financial management		Skill acquisition		Time management	
	F = 72.12		**F = 48.62**		**F = 30.01**		**F = 25.64**		**F = 55.16**	
	M	SD	M	SD	M	SD	M	SD	M	SD
Soccer	4.36	0.24	4.29	0.29	4.33	0.35	4.26	0.32	4.32	0.27
Volleyball	3.69	0.37	3.74	0.38	3.82	0.65	3.78	0.56	3.70	0.41
Hockey	4.34	0.29	4.32	0.27	4.38	0.38	4.23	0.30	4.22	0.32
Basketball	4.39	0.24	4.38	0.31	4.39	0.34	4.30	0.32	4.38	0.26
Tennis/ Badminton	3.82	0.39	3.78	0.39	3.68	0.55	3.77	0.52	3.87	0.42
Swimming/ Athletics	3.75	0.38	3.79	0.45	3.72	0.60	3.69	0.57	3..64	0.41
Average	**4.07**	**0.31**	**4.06**	**0.35**	**4.05**	**0.48**	**4.04**	**0.43**	**3.42**	**0.35**

The findings indicate that there were statistically significant mean differences among the different types of sport and the intrapersonal negotiation strategies ($F=72.12$, $p<0.05$). Tukey's (HSD) Post Hoc analysis indicated that soccer players were the most users of intrapersonal strategies ($M = 4.36$, $SD = 0.24$) to overcome sports

participation constraints while volleyball players were the least users (M = 3.69, SD = 0.37).

Interpersonal negotiation strategies also had statistically significant difference ($F=48.62$, $p<0.05$) in the means of the different types of sport. Basketball players utilized interpersonal negotiation strategies the most (M = 4.38, SD = 0.31) while it was least used among those in who played volleyball (M = 3.74, SD = 0.38).

There was a statistically significant difference ($F=30.01$, $p<0.05$) among the type of sport factors and financial management strategies. The sport where most student athletes utilized the negotiation strategy was basketball (M = 4.39, SD = 0.39) while that sport with the least use of financial management strategies was Tennis/Badminton (M = 3.74, SD = 0.38). On skill acquisition and time management strategies, there were statistically significant differences ($F=25.64$, $p<0.05$) and ($F=55.16$, $p<0.05$) respectively among the selected types of sports. Swimming/Athletics (M = 3.69, SD = 0.57) was the sport where least student athletes utilized skill acquisition.

This therefore indicates the there was a significant difference between constraints and type of sports, hence the null hypothesis that there would be no significant difference between constraints and type of sport was rejected.

CHAPTER FIVE: DISCUSSION OF FINDINGS.

5.0 Introduction

This chapter presents a discussion of the findings based on the objectives of the study. The section elaborates the findings of participation constraints and negotiation strategies of Kenyan university student-athletes in selected sports. The study set to establish the structural, intrapersonal, interpersonal, and sociocultural constraints on sports participation. Moreover, it also sought to investigate the negotiation strategies; intrapersonal, interpersonal, financial management, skill acquisition, and time management strategies used by student-athletes to enhance sports participation. Independent T-test analysis was conducted to determine the mean differences between gender, type of institution and the dependent variables; the constraints and negotiation strategies. One-way ANOVA was conducted to test the mean differences between type of sport, year of study and the constraints and negotiation strategies. Linear regression analysis was conducted to test the relationship between constraints and negotiation strategies among student-athletes in Kenyan universities.

5.1. Demographics characteristics of the respondents.

The findings revealed that male respondents were slightly more than the female respondents (Table 4.1). The findings are consistent with those of Wangari, Kimani, & Wango, (2017), which reported that there was low enrollment of women and girls in local sports. However, despite male students comprising a majority of the athletes, another study by Evans and Gagnon (2019) showed that female students-athletes representation has steadily been increasing. The close representation could be attributed to the fact that the respondents selected to participate in the study were only those who were representing their university in competitions at the time of the study.

In relation to the level of study, the study comprised respondents from four levels of study starting from year one to four. Table 4.1 show majority of the student athletes were in third year 31.6%, while those in first year were the least 15.7%. Conversely, students in year two were 28.8% and those in year four were 23.9%. These findings show that majority of the student athletes had stayed in the university for more than two years. Moreover, it indicates that participation in sports is not high among students in first year. This could be because they are still settling down in the institution and unless they are talented, it is difficult to join the university team. The findings concur with those of Diehl et al. (2018) who found that participation in sports and other physical activities increased with year of study until third year when the proportions decline. The findings also coincide with those of Qurban, Wang, Siddique, Morris, & Qiao, (2019), which showed that new students are still getting oriented to the institutions hence, less interested in sports while final year students are preparing to leave or are looking for jobs. This was also supported by Njororai (2010) who investigated challenges faced by student-athletes both at institutional and individual level. These findings imply that there were other factors that reduce participation of students in first and fourth years

As for the type of institution, findings showed that public universities had a higher number of student-athletes (57.1%) compared to those enrolled in private universities (42.9%). This may be due to the fact that, most public universities are older and might be having higher population of students compared to private universities. These findings can be attributed to the fact that there are more public universities than private in Kenya. Hence, most of the university students are enrolled in public universities.

The study focused on six selected sports with soccer having the most participants followed by hockey, volleyball, swimming/athletics, basketball, and tennis/badminton being the least represented. Therefore, soccer was the most popular sport among student athletes in the selected universities in Kenya.

5.2 Sports participation constraints.

The study found out the constraints to sports participation among university student-athletes in Kenya. It also determined whether there was a significant difference in sports participation constraints based on gender, year of study, type of university, and type of sport among university student athletes in Kenya. The constraints were divided into four categories of interpersonal, intrapersonal, structural, and socio-cultural constraints. These constraints limited the ability of the students to participate in different kinds of sport necessitating the adoption of negotiation strategies to increase the level of participation.

The structural constraints were the greatest constraints to sports participation among the student-athletes. They included high cost of sport equipment, poor management of sports facilities and equipment, inadequacy of sports facilities and overcrowding in the facilities. The least constraints included time and transport cost to the sports facilities. The findings resonate with those of other studies which found that crowdedness and financial positions constrained university students from participating in sports (Dhurup, & Garnett, 2011; Gómez-López, Gallegos, & Extremera,. 2010; Nelson et al. 2009; Salami, 2002). In Kenya, Universities are faced with financial constraints such that provision of transport cost. As much as that they would want the students to participate in the national games, held in far distances, the ferrying using institution buses become a challenge. Today, also, students in Kenya are not

accommodated within the university premises, but in private hostels. It implies that they have to commute for practice, especially over the weekends. With financial constraints, this affects their transportation costs for practice. Almost all universities in Kenya focus heavily on education and tends to down look at sports diminishing their programs leading to under-representation at the leagues (Gudo & Olel, Oanda 2011).

In terms of facilities, universities do not have adequate facilities for sports competitions. This affects accommodation during events. Some sports facilities may not be adequate for all the students who want to participate. This resonates with findings by Muhalia (2019) which indicated a shortage of soccer fields and athletics tracks for students to utilize in Kenyan universities. In addition, Bukhala (1998) observed that some universities have congested teaching time tables and these facilities have restricted access at certain times and this leaves most of the students not utilizing the facilities adequately and freely. Majority of sports facilities in universities are in a bad state for training and competition purposes hence posing injury threats which leads to withdrawal by student-athletes resulting to low participation in various university sports (Muhalia, 2019).

The study also revealed that availability of competition kits for students was higher in private than in the public universities. Teams' preparedness, performance and participation in games is attributed to availability of proper training kits. A team with lack of these will face challenges in team representation and thus affecting their competitive outcome. However, the findings contradict with other studies which indicated that the major structural constraints to sports participation included time,

accessibility and facilities (Gyurcsik et al., 2004; Halforty & Radder, 2015; Smith, 2007).

The study results showed that the greatest interpersonal constraints to sport participation included lack of encouragement from friends and family, lack of trained coaches and pressure from parents and guardians to concentrate on studies. These findings corroborate with those of Chung et al., (2013) and Marwat, Zia-ul-Islam, & Khattak, H. (2016) which found that lack of skilled coaches constrained students' participation in sports. Besides, they coincide with those of other studies which indicated that lack of sport partners and lack of encouragement and motivation from friends and family constrained students-athletes participation in sports (Downes 2015; Ehsani 2005; Masmanidis et al., 2009; Spivey, &Hritz 2013). In some cases, especially in public universities, well representation lacks in national teams due to lack of enough qualified personnel to manage the teams. There are not enough available trained and professional coaches supporting staff manning the sports facilities and programs (Muhalia 2019).

The study also found out that a large proportion of respondents indicated that they do not participate in sports because they do not like to interrupt their routine. Most of them highlighted that fatigue constrained them as they were too tired to participate in the respective sports. Majority of the respondents also agreed that lack of required skills, absence of opportunities, lack of time, the sport being tiresome and fear of sustaining injuries constrained them from participating in their preferred sports. Other intrapersonal constraints cited by the student-athletes were health complications, lack of the required fitness levels, stressful nature of competitive sports and placing of extensive attention to academics while ignoring sports. Adverse weather condition including hot or humid or cold weather conditions also inhibited their participation in

sports. The findings concur with the previous studies of Asihel (2005); Chung, et al., (2013); Downess (2015); Ehsani (2005); Smith (2007) and Spivey and Hritz (2013) which found that the greatest constraints to sports participation included lack of time due to study obligations. Besides, there were other intrapersonal constraints such as lack of knowledge and skills, awareness and health problems and lack of interest in the games, especially for the female students.

Regarding socio-cultural constraints, a high number student-athletes indicated that cultural limitations did not prevent them from participating in competitive sports since they scored very low in this category as compared to the others. This finding contradicts studies from other parts of the world where socio-cultural constraints are seen as the most problematic constraints because they are less visible and therefore not considered to be significant (Alexandris et al., 2017; Balaska et al., 2012; Chick & Dong, 2005; Mirsafian, 2016; Naghdi, Balali, and Imani, 2011).

A significant proportion of the respondents reported that sports was not a man's territory and a woman's place was in the kitchen respectively. These findings contradict those reported by Jabeen, (2017) who opined that patriarchal attitude among women regarding sports as a male activity is a critical contributor to the low participation of women in sports. However, with regard to individual items in the instrument, majority reported that family obligations limited the amount of time they had to participate in sports. The greatest social-cultural constraint to sports participation indicated by the respondents was family obligation. However, a significant number disagreed that the lady's place was in the kitchen and not in the field. The findings concur with those of Chung, et al., (2013) and Asihel (2005) which

found that social commitments, family responsibilities, and cultural stereotypes and ethic care constrained female students from participating in sports.

Attitude towards female participating in sports as was indicated by Fatahi Masrour, Tondnevis, and Mozafari, (2012); Berami (2009); Mirsafian, (2016); Mirsafian, Mohamadinejad, Homaei, & Hédi, (2013) and Tekin (2011) coincides with the findings of this study. In conclusion, findings on the participation constraints are commensurate with those of previous studies particularly regarding socio-cultural, structural, interpersonal, and intrapersonal constraints (Dhurup, & Garnett, 2011; Downes, 2015; Ehsani, 2005; Gyurcsik et al., 2004; Halforty & Radder, 2015; Masmanidis et al., 2009; Nelson et al. 2009; Salami et al., 2002; Smith, 2007; Spivey & Hritz, 2013).

These results indicates that structural constraints such as limited facilities, crowded facilities that are experienced by university student-athletes across the world are similar and universities worldwide need to come up with ways and strategies to try and address these constraints to make participation in sports more accessible to students.

5.2.1 Gender differences on sports participation constraints

Findings from independent sample t-tests carried out to assess the mean differences across gender in the four constraints categories indicate that female student-athletes were more constrained intensively than male student-athletes in all the four categories of the constraints. This is illustrated in Table 4.19 where female respondents scored higher in all the four categories of constraints compared to men. These findings are in agreement with those of Asihel, 2009; Beirami, 2009; Ehsani, 2007; Mirsafian, 2014; Fatahi et al., 2012: Mrakovic, Hraski, & Lorger, 2011. The findings revealed that

socio-cultural constraints and parental pressure impacted negatively on sports participation among female student-athletes more than male student-athletes, which was also reported by Tekin (2011). However, the results contrast those of Trail, et al., (2008) where male student athletes perceived structural constraints in a greater extent than female students. These findings therefore imply that socio-cultural constraints are perceived and experienced differently in various cultural settings in the world.

These findings are supported by previous studies (Daskapan et al., 2006; Dhurup, & Garnett, 2011; Hoden et al., 2010; Mohammed, Salmiah, Ariffin, & Kamaruzaman, 2014; Mugwedi, & Mulibana, 2014; Ramirez-Velez et al., 2015). In the Kenyan universities, as this study shows, women students are usually laid back in terms of active physical lifestyles, as also supported by Muasya (2004). Hoden et al; suggested that females need to put more effort in terms of improving sports-related skills. On the same note, Ramirez-Velez, et al., (2015) opined that directorates of sports needed to come up with affirmative actions. However, the results contrast the study findings from Drakou, et al., (2008) which showed no significant difference with respect to gender.

Inadequate opportunities to participate in sports affected more females than males in structural constraint. However, male respondents were more constrained in aspects such as inadequate coaching services at the university that limit their participation in sports. Males were more constrained regarding the issues of sports programs and services which are poorly organized and managed than female respondents. This is the factor that had the highest impact among the structural constraints. These results were also reported by Ledford, 2013; Minkel, 2010; Spivey & Hritz, 2013. Several factors affect the representation of both genders in sports. The factors may be

categorized as historical, social, organizational, and political. The concepts of feminine and masculine dominance in different sports are created around cultural beliefs, power relations, gender role expectations and responsibilities, and institutional support.

Findings from intrapersonal constraints indicated that female respondents were more constrained than males where they viewed sports as an interruption of their routine, fatigue, lack of skills and competitive sports being stressful. On the other hand, male student-athletes were more constrained by lack of enough time to participate in sport due to study commitment than females. On interpersonal constraints, females were the most constrained by fear of failure or coaches' blames, lack of friends who have time to participate in sports, and lack of encouragements from friends and family as supported by the results from Downes 2015; Ehsani 2005; Fatahi et al., 2012; Masmanidis et al., 2009; Spivey, & Hritz, 2013; Mrakovic et al., 2011.

Similarly, women more often face a number of constraints to leisure compared to men, particularly those related to gender norms for example, family caregivers, body image, and perceived lack of skills which is supported by findings from (Fendt & Wilson, 2012; Selvaratnam, Snelgrove, Wood, & Potwarka, 2021; Wood & Danylchuk, 2012). In a campus recreation context specifically, research has found that women were more likely to be constrained by not knowing how to use fitness equipment, lack of time, and an unwelcoming facility environment which were in line with results from Hoang, Cardinal, Newhart, 2016; and Stankowski, et al., 2017.

Females were most constrained on cultural limitations and lack of time to participate in sports due to family obligations and other leisure activities. Male student-athletes have shown to have significantly higher participation rates than female student-

athletes. These findings suggest that male student-athletes perceive themselves as least constrained compared to females. These findings are in agreement with those of Shifman et al., (2012); McDowell, Deterding, Elmore, Morford, & Morris, 2016; Evans & Gagnon, 2019; and Stankowski et al., (2017) where females registered higher constraint scores than males. These findings shows that culture is more concerned or biased towards female as compared to males. This could be because of the various gender roles that different culture perceive to be feminine or masculine.

Additionally, from recent championships, it is evident that majority of participants were male. For example, in the FASU 2022 games that were held at Kenyatta University from African universities, 684 student-athletes were male athletes as compared to 463 female student-athletes involved in various sports (Onywera et al., 2022). The under-representation of female athletes in sports participation and leadership is pervasive in many university championships and still remains an issue that need to be continually addressed.

5.2.2 Year of study, type of university and sports participation constraints

Each University in Kenya boasts of their unique facilities for their students and programs that ensure students involvement for games and competitions. It is important to note that, participation and success of sports by Kenyan universities is measured through Kenya University Sports Association (KUSA) and National League rankings, over the years. However various challenges have been noted in terms of facilities and programs offered that hinder the success of these sporting activities being fully implemented.

Findings on the differences between year of study and constraints indicated that student-athletes in first year of study appeared most constrained on the intrapersonal

constraints while those in their third year of study were the least constrained. Fourth year student athletes were most constrained by fear of sustaining injuries from participating in sport with those in second year of study being the least constrained. Interpersonal constraints were most experienced by the first-year students. Elsewhere in Kenya, studies show that there is a high influence of peer pressure in young adulthood (Rintaugu et al., 2020; Wanjiku 2010). This is affected the students as they join campus. No wonder then, interpersonal constraints like influence of friends who do not have time to participate in sports is a major constraint in this study.

Student athletes in their first year of study had high interpersonal constraints, with friends who did not have time for sports participation while those in third year were the least constrained. Therefore, year of study has been found to influence sports participation constraints which is also supported by other scholars (Salami, 2002; Ehsani, 2007; Mirsafian, 2014). Similar findings were seen in the structural constraints on inadequate facilities and sports equipment being statistically significant. The most constrained student-athletes were those in their first year of study while those in their fourth year of study were the least constrained

Findings on differences between type of institution and constraints indicated that sports programs and services for sport are poorly organized and managed, inadequate opportunities for participation in sport, crowding, transport and related expenses in public universities were more than private universities, as supported by the findings of Ceurvorst, et al., 2018. On the other hand, respondents in private universities were more affected in putting excessive attention to studies and neglected sport activities than public universities which concur with findings by Yamashita (2016). Muhalia (2019) concluded that Private Universities had higher representation of teams than

public universities and one of the main reasons was that public universities had sports facilities that are of inadequate standards for use and not in good condition, hence hindering their use for sports and games. The study further indicated that private universities have invested more on their indoor and outdoor facilities than public universities. If facilities are not maintained to the standard needed, they become unsafe for use and discourage students from engaging in sports. Success of any sports program is characterized by availability of good facilities, therefore lack of the same hinders implementation of such.

Public universities have low standardized sport venues: sports fields and courts. This is because of low investments and poor management strategies, accompanied with high number of students participating in sports of choice leaving no room for maintenance. On the other hand, Private universities have modernized and well-maintained sports facilities, due to huge investments, with organized sports programs giving them space for maintenance (Muhalia, 2019).

Further Muhalia states that public universities do not have enough coaches and trainers and the ones that are there are not easily accessible to deliver coaching services and developing sports programs, thus hindering participation in many sports.

In terms of intrapersonal skills, student-athletes in public universities were more constrained by the lack of required skills and lack of the required fitness levels to participate in university sports than those in private universities. These findings corroborate with those of Yamashita, 2016. On the other hand, student-athletes in private universities were more constrained by fear of sustaining injuries, interruption of their routine with sports, putting excessive attention on studies and neglecting sport participating in sport than public universities. This is also reported by Henchy, 2013.

Public universities respondents were more constrained by parental /guardian pressure on studies and interruption of their routine with sports, putting excessive attention on studies and neglecting sport activities that limited their participation in sports than those in public universities as was also highlighted by (Rocha & Fleury, 2017). The item was lack of time to participate in sports due to family obligations and other leisure activities where public universities were more constrained than respondents in private universities. Besides, student athletes in private universities were the most constraints with structural constrains since their institutions of learning lack a wide variety of facilities to support different sports. Besides, the findings signifies that the challenges that university students face are common among most institutions of higher learning, particularly in developing countries with strong ties to their traditional values.

Additionally, Muhalia, (2019) revealed that 70% of students from private universities reported that the number of fields provided for ball games were enough for men and women in their university as compared to 47% among those in public universities. This shows that some universities haven't met the capacity provisions of these facilities which undermines participation in sports and games by students.

Public universities have large number of students enrollment hence the tendency to have overuse of the available facilities leaving no room for maintenance which leads to low quality or faulty facilities and equipment which in turn affect sports participation in Kenyan universities (Okiro, 2011). On the other hand, lack of expansion and modernization of the available sporting facilities leads to over-stretched demand due to the increasing admission of students, making difficult for trainings and competitions.

Public universities admit a higher number of students and therefore a strain on the limited facilities to participate in various sports translates to under representation of teams during competition and games. There is a need to have in place both indoors facilities and outdoor facilities that can comfortably accommodate players depending on the population of the students in a particular institution. Universities are also unable to formulate sports programs to cater for the increasing demand of sports participation in all fields of sports available to growing student population (Mwisukha et al., 2014).

Facilities availability was a constraint of concern in this study. Other studies have shown similar concerns, for example, Okiro (2011) found out that sporting programs were not adequate particularly in public universities to accommodate the daily sporting demands therefore affecting participation. This is further supported by Gudo, Olel (2011). This is because most public universities and some underdeveloped private universities do not have standardized sport facilities such as swimming pools, playing courts and fields. These facilities pose harm and cause injuries to athletes resulting to poor performance and demoralization (Muhalia, 2019). Additionally low budgets of sports programs by the public universities are not enough to run the day-to-day sporting activities thus slowing down the level of competitions among the participating university athletes at the league levels. Universities sport departments receive less allocations therefore experience difficulties in funding their sport teams at league levels (Muhalia 2019). On the other hand, low corporate sponsorships (KUSA 2022) at the leagues hinder sports participation resulting into poor performance. Furthermore, these findings could be due to low level of investments in sport within most public universities, training equipment and health kits.

5.2.3 Type of sport and sports participation constraints

Findings on the differences between the type of sports the student athletes participated in and constraints, revealed three significant mean differences in the structural constraints. Student athletes that played hockey were the most constrained with the sports equipment for sport that are too expensive while those who played soccer were the least constrained. Poor organization and management of sports programs and services had statistically significant mean scores where students' athletes participating in swimming were the most constrained while soccer players were the least constrained. These findings are in agreement with those reported by Casper, Bocarro, Kanters, & Floyd, (2011), while at the same time they are in contrast with those from Lupo et al. (2017) which found that people are more motivated to participate in individual sports than team sports. Furthermore, previous studies also indicate that the number of constraints increases with the types of sport an individual participates in (Alexandris et al., 2008).

Within this domain, lack of modern equipment for participants' sport at the university had a statistically significant influence on participation where findings indicated that student athletes participating in basketball were the most constrained while those in volleyball were the least constrained.

Under the interpersonal constraints, lack of encouragement from friends and family to enable student-athletes to participate significantly influenced sports participation among the university student-athletes. This is similar to the findings of a study by Marwat, et al. (2016). Results also indicated that Tennis/Badminton players were the most constrained whereas basketballers were the least constrained as also reported by Stanek, et al. (2015). Similar findings were also evident where friends did not have

time to participate in sports with participants, which constrained volleyball players, as also observed by Jr, Morse, Eddy, & Love, (2017).

Basketball student-athletes were the most affected by intrapersonal constraints, while their counterparts in volleyball were the least, which was similar to the findings by Thomas et al. (2019). Conversely, soccer student-athlete players were the most constraint with lack of time since their studies took up most of their time as also observed by Choi, et al., 2020. Under the intrapersonal constraints, putting excessive attention to studies and neglecting sport activities mostly constrained student-athlete participating in swimming/athletics whereas those in soccer were the least constrained, which was also observed by Choi, et al. (2020).

Within the socio-cultural constraints category, lack of participation in sport due to cultural limitations constrained swimming/athletics student athletes the most, while hockey players were the least constrained, which concur with the study by Abou Elmagd, Tiwari, Mossa, & Tiwari, (2018). Similar findings were evident on the lack of time to participate in sports due to family obligations and other leisure activities. The student-athletes participating in soccer were the most constrained while their counterparts in volleyball were the least constrained, which contrast findings by Ito & Hikoji, 2018. In a study conducted by Wambalaba (2000), an investigation was done to determine the size of women that dominate in a specific sport as compared to males in Nairobi. It was noted that Basketball as a sport was more popular among females, followed by hockey. From the study, it was also noted that Netball and Volleyball are traditional sports for women.

Another article by Mwisukha and Rintaugu (2013), highlighted that women who play football have had to overcome the socio-cultural beliefs and attitudes which barred them from participating in that specific sport.

5.3 Sports participation negotiation strategies

Universities have emphasized on having sports as part of their extracurricular activities to help in building and sustaining a community within the institutional level and broader community level while ensuring student retention. Therefore, there is need to ensure providence of sporting facilities and having in place sustainable and rewarding sports programs.

The study found out the negotiation strategies used by Kenyan university student-athletes to enhance sports participation. It also determined if there was a significant difference in sports participation negotiation strategies based on gender, year of study, type of university, and type of sport among university student-athletes in Kenya. The negotiations strategies were grouped into five categories; intrapersonal strategies, time management strategies, interpersonal strategies, skill acquisition strategies and financial management strategies. Findings indicated that intrapersonal strategies such as, thinking about how important sport is by giving consideration and trying to eat right and sleep more so that they don't feel tired to participate in sports were the most utilized by respondents in this study. The findings concur with previous investigation that affirmed the role of negotiation strategies in overcoming sports participation constraints (Tek 2018; White 2008; Wood 2011; Wood & Danylchuk 2015; Yerlisu-Lapa 2014). Most of the student-athletes regularly participated in activities that are not very competitive to avoid stress, followed by trying to be organized to manage

academics and sports, trying to improve physical fitness so that he/she can participate and wear protective/safety equipment to prevent injuries respectively.

The findings on interpersonal negotiation strategies showed that they were the most used by respondents to overcome societal constraints, including gender roles to achieve their optimal participation. This was also observed elsewhere by Son et al. (2008) and Yerlisu-Lapa (2014). However, the negotiation strategies that were mostly used included; choosing to participate when the facilities are not crowded, trying to meet people with similar sports interests and convincing parents on the benefits of sports to allow participant to play, which were also reported by Li, & Stodolska 2007; Loucks-Atkinson &Mannell, 2007 and Son, et al., 2008.

Findings on financial management strategies showed that those commonly utilized by student athletes involved budgeting for money to fit sports activities as their negotiation strategy. Respondents used improvised equipment and/or clothes for sport compared with borrowing equipment from other students so that they can participate. The findings concur with Anokye, Pokhrel, & Fox-Rushby, (2014); Deelen, Ettema, & Kamphuis,. (2018); Ivašković, &Čater, 2018 and Reece, McInerney, C., Blazek, Foley, Schmutz, Bellew, & Bauman, 2020. These findings affirm the role of financial management strategies in mitigating sports participation constraints. Budgetary allocations for sports programs and facilities in universities are inadequate. It is evident in the poor number and standard of facilities and equipment, and facilitating of sports programs. Budgets that cater for sports events and activities in the universities should be increased since they greatly affect implementation of sports programs.

There is always a significant drop in participation of KUSA, Kenya federation leagues and Africa University Championships (FASU) and The World University Championships (FISU) as compared to inter-campus sports day, the intramurals, organized by mostly public universities within the campus which could be an indication that financing sports activities outside campus is not something the universities are willing to embrace mostly due to team logistics (KUSA, 2022; Muhalia, 2019). This means that financial constraints across universities are similar and they need to be looked at keenly.

Regarding skill acquisition strategies, respondents reported that they regularly swallow pride, try their best, practice regularly to improve skills and seek for help for the acquired skills if not skilled. Furthermore, the student-athletes indicated that they learnt new skills to help them participate better in sport as a strategy to negotiate around factors that constrained them from participating in sports. These findings align with other studies assertion that skills acquisition strategies were associated with developing an interest to participate in a particular sport (Beggs et al., 2005; Kim et al., 2016; Rintaugu et al., 2013; & Wood, 2011). This can be attributed to the fact that student-athletes participating in university sport have been participating even in high school sports hence high level of self-efficacy in terms of constraint negotiations.

Since respondents reported that they often utilized time as a strategy of overcoming constraints that impeded their participation in sports by participating in sport closer to where they live. This means that student-athletes should possess high self-efficacy to be able to cope up with not only sports constraints but also various life challenges.

5.3.1 Gender differences and negotiation strategies

Independent t-test was carried out to find out the mean difference in negotiation strategies depending on the respondents' gender. This is because negotiation strategies play an important role in alleviating sports participation constraints. Findings on intrapersonal strategies indicated that male student-athletes try to be organized to manage academics and sports and improvement on physical fitness more than females, which was also reported by other studies (Lyu & Oh 2015; Son et al., 2008; Oliver, et al., 2019; Wood 2011; Yerlisu-Lapa, 2014). On the other hand, female respondents purposely participate in activities that are not very competitive to avoid stress and thought about the importance of sports more than males. These findings can be attributed to the fact that majority of the sports are dominated by male. Therefore, universities need to provide more incentive to promote female, student-athletes to participate in university sports.

However, regarding interpersonal negotiation strategies, female student-athletes tend to participate in sports when facilities are not crowded more than males, similar with negotiation strategy and trying to meet people with similar sports interests' more than male student-athletes. These results agree with those of (Wood, 2011). The most utilized interpersonal strategy was trying to meet people with similar sports interests among female and male student-athletes as also observed by Evans & Anderson, 2018. Female student-athletes tend to have gender role expectations, cultural notions, and technical nature of the recreation and family commitments. Such constraints may have come about due to 'socially-derived gender role expectations' which was also observed by Shaw & Henderson, 2005. Female student-athletes also practiced more regularly to improve skills and seeking for help with the required skills than male respondent. This implies that female student-athletes persevere more

to challenges compared to their male counterparts. Male student-athletes should learn from their fellow female student-athletes to use these skill even in real life situation.

Female respondents planned things ahead and set aside time for sport more than males. On the other hand, males attended events that fit their schedule more than female respondents. Chumba (2019) observed that, the notion that some sport disciplines such as rugby and soccer are better played by male students hindered huge turnout of female students to participate in them in the recent past. But, earlier on, according to Kateshumbwa (2011), a large number of female students participated in the aforementioned sports disciplines.

In relating to the KUSA and other university games most universities championships are equally represented by almost the number of athletes in both genders. The recent introduction of KUSA Women championship has accelerated the number of female students to engage in sports (KUSA 2022). Netball has been viewed as a feminine sport, thus male students were discouraged to participate in it, but with the modernization of sports, male students now participate (Mwisukha, et al., 2014; KUSA 2022). This can be attributed to the fact that student-athletes participating in university sport have been participating even in high school sports hence high level of self-efficacy in terms of constraint negotiations.

Most university sport teams and leagues are headed by male coaches than females, especially in public universities. This could be attributed to the low number of female students pursuing sports related courses and training (Mwisukha, et al., 2014). Most sport disciplines such as chess, scrabble and rugby have been dominated by male athletes in the university sport championships (KUSA 2022).

To promote fair play and participation in university sports, the KUSA women's championships, an annual event that is organized in line with international women's day, has been aiming at promoting gender equality in university sports in 18 sports disciplines; football, netball, volleyball, handball, hockey, rugby, tennis, badminton, chess, scrabble, karate, taekwondo, swimming, athletics, softball, darts, and woodball. Kenyatta University prides itself on its success in its 2021 newsletter in winning all the editions since the games were first held. This is an indication that women are excelling in sports and more facilities and programs should be developed to encourage their participation

Over the years, females were not allowed to participate in sports, unlike males, but over time the systems are being challenged to include women in sports and sports leadership. Most studies, therefore, point toward women's under-representation in participation in sports and more specifically illustrated in the study carried out by Njororai, Achola, and Mwisukha, (2003). The study revealed the underrepresentation of women in Universities in Kenya, in competitive and recreational sports. This means that universities need to enhance women sports in all universities in the country to give all students an equal chance to participate in sport. This is due to the fact that there are many benefits associated with students' participation in sports.

5.3.2 Year of study, type of institution and negotiation strategies

The findings indicated that student-athletes from both public and private universities thought about the importance of sport and gave it consideration. Student-athletes in public institutions did more of purposive leisure sports activities and less on very competitive sports to avoid stress than those in private universities. These findings were also observed by Alahmad (2016). Trying to eat right and sleep more so as to

avoid the feeling of being tired to participate in sports was most utilized in private universities, where respondents in public universities utilized it more than their counterparts in private universities which is supported by Lyu and Oh (2015). The findings implies that majority of university student-athletes are well informed about sports nutrition and principles of sports training which is very important component in sports performance.

Participants encouraged friends to participate in sports within public universities more than in private universities. On the other hand, in private universities the athletes tried to meet people with similar interests more than their counterparts in public universities, as also reported by Tek (2018). On financial management strategies, student-athletes in public universities borrowed equipment from other students and budgeted money to fit sports activities more than those in private universities. These findings were supported by previous studies conducted by Halforty and Radder (2015) and Gyurcsik, et al., (2014). These findings show that when student-athletes are faced with financial constraints they become creative and look for ways to improvise and continue participating sports. This can also show that student-athletes may be away of the various benefits that are attributed with sports participation.

Universities serve as reservoirs for elite athletes and sport personnel; therefore, they should be empowered by being provided with the relevant resources such as modern sports facilities, sports equipment, suitably qualified technical and management personnel, incentives, as well as opportunities for competitive exposure in structured sports programs (Mwisukha et al., 2014). For instance, in the year 2022, the FASU games at Kenyatta University saw the Institution present athletes to China, to represent not only Kenyatta University but also Kenya and Africa. This qualification

ensured that participating universities were responsible for availing trainers, coaches, experts and medical staff that form a central element of success in games. Therefore, creating a source of livelihood to various people who technically deal with student-athletes in participation in various university games.

Time management strategies focused on ensuring availability of adequate time to participate in sports. In public institutions, athletes planned things ahead and set aside time for sports than athletes in private universities. These results were also observed elsewhere by Kennelly, oyle, & Lamont, 2013. However, respondents in private universities participated in sport closer to places where they live and attended events that fit their schedule and felt there would be others in future, which was also reported by findings from Chun, Min, & Rotherham, 2021. These findings revealed that university student-athletes participating in sports were good time managers. This is very commendable because the same can be applied in their academics and other day to day activities. They can also transfer the same skills into their workplace which enhances productivity in their workplace.

Moreover, the hosting of FASU games in Africa, Kenya has hosted three out of the ten editions so far: University of Nairobi in 1978 and 2014 and Kenyatta University in 2022. This is an indication that universities in Kenya pose competitive spirits in hosting more games. Hence, there is need for the universities to develop modern sports facilities and provide required equipment for training and competition purposes.

Mwisikha et al., (2014) concluded that private universities provide better incentives to participating athletes in various sport teams. This motivates the athletes to participate more in sports of choice, and therefore accelerate high number of students

participating in sports competitions. Most public universities provide less incentive to participating students in various sports categories. This act demoralizes most students from participating in sports competitions.

Public universities enroll large number of students per year compared to those of private universities, but less come out to engage in sports due to low investments, motivation and inadequate sport programs such sport lessons, training and recruitment. According to Kinoti (2006) the number of qualified sport professionals is low due to understaffing in public universities as compared with the numbers in private universities. This hinders sports services to a large number of students in those universities who would like to participate in university sport competitions and championships. On the other hand, most sport facilities in the private universities are well equipped as compared to those of public universities.

Sport competitions and championships in private universities generally get better sponsorship than public universities due to their better sports facilities and equipment, services offered and high level of negotiations as a result of high level of transparency, management and leadership (Muhalia 2019)

5.3.3 Type of sport and negotiation strategies

In the intrapersonal sports participation strategies, four statistically significant items were used by student-athlete to negotiate their participation in sports. For instance, swimming and athletics student-athletes thought about the importance of sport and gave its consideration more than their counterparts who played volleyball. This is also supported by Hudson (2019) and Crawford et al. (1991). Similar findings were evident in the item where tennis/badminton players purposely participate in activities that are not very competitive to avoid stress whereas those who played volleyball

rarely used this strategy. Basketball players tried to be organized to manage academics and sports, which was statistically significantly different from the hockey players. Swimmers and those in athletics also tried to improve physical fitness for participation, whereas hockey players used this strategy least. The findings indicated that Majority of university student athletes are aware of the benefits of participating in sports and therefore they were able to look for ways to counter the various constraints that they encountered.

On the interpersonal strategies segment, there were two statistically significant items which the students used to overcome constraints in their respective sports, which was in agreement with Öcal, 2014. Swimming/athletics had students choosing to participate when the facilities are not crowded as a highly used strategy while those in volleyball used it the least. Moreover, trying to meet people with similar sports interests was most utilized by student-athletes participating in tennis/badminton while those who played volleyball used it the least as their strategy for overcoming participation constraints (Super, Hermens, Verkooijen, & Koelen 2018). The findings imply that university student-athletes have interpersonal skills which they can use not only in trying to overcome sports participation constraints but also various day to day life challenges

In the financial management strategies section, there was only one statistically significant item student athletes employed to overcoming challenges to participation in the respective sports. The item was the aspect of borrowing equipment from other students so that participant can participate whereby those who played basketball utilized it the highest while those in volleyball utilized it the least. This is supported by findings by Coenders, et al., 2017 and Ivašković&Čater, 2018. These findings imply that university student-athletes have highly developed their mind hence the

ability to overcome constrains through the use of negotiation strategies and participate in their various sports disciplines.

This category comprised three statistically significant items the student-athletes utilized. On the item of attending events that fit participant schedule and feel there will be others in future, the level of utilization varied between the different kinds of sports where those who played tennis/badminton utilized it the most, while volleyball players utilized it the least, as also reported by Hall, et al., 2010. Similarly, the findings in the item on planning ahead of things and setting aside time for participation, showed that tennis/badminton players used the strategy to overcome participation constraints unlike their counterparts in volleyball, who utilized it the least. These findings show that university student-athletes are creative and this is quite commendable because they can use the creativity to better their live and also perform well academically.

With the FASU, 2022, and KUSA, 2022, games held within the boundaries of Kenya, and a report written by the Russian Embassy in Kenya entitled *'sports in Kenya'*, the following sports disciplines have steadily grown in popularity over the years and interests in these sports has increased in university settings: soccer, swimming, volleyball, basketball, tennis, athletics, hockey, and handball. With the expansion in the national and international competitions, their relevance in world of sports and on the back of junior as well as female participation, the following sports have also dominated university games: badminton, karate, table tennis, chess, scrabble, tae kwo do, and softball. As other sport disciplines grow in popularity, the following sports have been consistently left out of various university games: cricket, woodball, roll ball, floorball, squash, golf and baseball. Some of them, such as woodball, roll ball

and floorball have not been fully developed in various university sport programs in the Kenya universities. There is also lack of funds to equip some of them such as golf, which is considered an expensive game KUSA (2022). Therefore, these findings show that university lack a comprehensive sports sponsorship for the various sports disciplines. One of the recommendations would be to engage a multi-sectoral approach in providing sports sponsorship to university students.

CHAPTER SIX: SUMMARAY, CONCLUSIONS AND RECOMMENDATIONS

6.1 Summary

The study investigated on the constraints affecting student-athletes participation in sport and the negotiation strategies that are used to negotiate the constraints. It also determined if there was a significant difference in sports participation constraints and sports participation negotiation strategies based on gender, year of study, type of university, and type of sport among university student athletes in Kenya. Lastly, it established the relationship between sports participation constraints and negotiation strategies among student-athletes in Kenyan Universities.

The study affirmed that participation in sports is hindered by various constraints and there are various negotiation strategies that can alleviate the constraints. Sports participation constraints increased significantly as the year of study increased and also across gender. However, negotiation strategies were found to mediate, the relationship between constraints and sport participation. Negotiation strategies and constraints were found to vary significantly based on socio-demographic variables as well as between different types of sports. There was a significant difference between the selected demographic characteristics and the constraints and negotiation strategies. University sports managers therefore need to understand the various constraints and work with student leaders to develop sustainable sports programs with focus on student sport's needs.

6.2 Conclusions

Based on the objectives and findings of this study, the following conclusions are drawn;

i. Student-athletes are faced with more structural constraints than any of the three other kinds of constraints (social cultural, intrapersonal and interpersonal).

ii. There was a significant difference in sports participation constraints based on gender of the student-athletes on structural constraints, and interpersonal constraints. Female student-athletes were more constrained compared male student athletes.

iii. There was a significant difference between student-athletes in public and private universities in terms of structural constraints and intrapersonal constraints. Student-athletes from public universities were more constrained compared to their colleagues from private universities.

iv. With regard to negotiation strategies and gender there was a significant difference in skill acquisition, financial management and intrapersonal. Male student-athletes scored higher indicating that they used negotiation strategies more than female student-athletes.

v. Private universities seem to utilized negotiation strategies more than their counterpart public universities. For instance, there were significant mean differences in the negotiation strategies of time management, financial management, and interpersonal strategies.

vi. There was a statistically significant relationship between constraints and negotiation strategies.

vii. Negotiation strategies had statistically significant impact on the constraints that impeded the student athletes from participating in sports in their respective institutions. All the identified negotiation strategies enabled the student athlete to mitigate the participation constraints.

6.3 Recommendations for policy and practice

Based on the conclusions of the study, the following recommendations are made for policy and practice;

i. University sports and games departments in both public and private should find alternative strategies to enable students to participate actively in sports..

ii. Sports and games departments in the Universities should pay attention to intrapersonal constraints. They are consistently the most sports participation constraining factors across gender and year of study. Action can be taken through motivational messages.

iii. Both public and private universities should appreciate the constraints in order to effectively facilitate the implementation of programs related policies and strategies to enhance adherence in sports participation by students. They can have feedback forms for students to give their suggestions, complaints or compliments.

iv. KUSA to continue enhancing service delivery in terms of increasing the number of sports that student -athletes can participate in

v. Student athletes to be proactive and embrace challenges positively and think of how they can negotiate constraints to ensure continued participation because the benefits of participation go beyond the university level.

6.4 Recommendations for further research

i. Further studies should be conducted involving student-athletes with disabilities, since this study only focused on the abled student-athletes.

ii. Additional study can be carried out on motivations and attitudes of university student-athletes towards sports participation.

iii. Further studies using qualitative methods to examine constraints and negotiation strategies among university students would benefit to fill the gaps in knowledge.

iv. The current study only utilized competitive student-athletes in university teams. There is need for further studies be carried out to determine the sports participation constraints and negotiation strategies among recreational student-athletes in the university.

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APPENDICES

APPENDIX A: PERMISSION TO CONDUCT RESEARCH

Kiongo Ndirangu
Kenyatta University
P.O. Box 43844
Nairobi

To The Games Director
Kenyatta University
P.O. Box 43844
Nairobi
Date ……
Dear Sir/ Madam

RE: PERMISSION TO CONDUCT RESEARCH

I am a postgraduate student at Kenyatta University, Pursuing a degree in Master of Science, (Recreation and Sports Management). I am obliged to carry out a research which is based on **sports participation constraints and negotiation strategies among university students in Kenya.** I am writing to request for permission and support from your department to be able to conduct this study by administering questionnaires to student athletes participating in the sports in your university.

The findings of this study may enable universities to have a blueprint for policy development and interventions to meet the needs of students and increase participation levels of which may promote sports in universities. I give you the assurance that the data collected will be confidential and will be used for research purposes only. Your support will be highly appreciated and regarded.

Yours faithfully

……..

Kiongo Ndirangu

APPENDIX B: CONSENT FORM

PARTICIPATION CONSTRAINTS AND NEGOTIATION STRATEGIES OF UNIVERSITY STUDENT-ATHLETES IN SELECTED SPORT DISCIPLINES IN KENYA.

Dear student-athlete,

I am a postgraduate student at Kenyatta University, Pursuing Master of Science, (Recreation and Sports Management). I am obliged to carry out a research which is based on **sports participation constraints and negotiation strategies among university students in Kenya.** I have been selected your university as one of the study sites and I am interested to know your opinion regarding sports participation issues at the university in a questionnaire that you will respond to if you agree to take part in this study. Do not hesitate to ask any question in case there is anything unclear to you. You will be requested to give your honest opinion when responding to the items in the questionnaire. Your participation in this study is purely voluntary and you may opt to discontinue anytime you feel that some of the questions are infringing on you.

All the information you give shall only be used for purposes of the research only and will be treated with confidentiality. You are not supposed to write your name at anywhere on the questionnaire. Upon completion, please return the questionnaire in case of any further questions, feel free to contact the researcher through the contact information provided.

By signing in the form shows of your personal consent to participate in this research.

I have read and understand the above information and my signature below shows that I agree to take part in the study

Sign …….
Yours sincerely
Kiongo Ndirangu
0723825872

APPENDIX C: QUESTIONNAIRE

UNIVERSITY SPORTS PARTICIPATION QUESTIONNARE

Dear student athlete

This tool is designed for university sports study and the scholar aims to find constraints to sports participation and the negotiation strategies that can be used to overcome them. The data that you will give shall be used for research purposes only and shall be handled with confidentiality. The results of this research may lead to various interventions by sports and games departments to promote sports in Kenyan universities, since there are numerous benefits that are associated with sports participation. Read the items carefully and give your honest responses. This questionnaire is anonymous therefore don't write your name.

SECTION ONE.

1. Your gender

   Male [ ] Female [ ]

2. Your age in years

   18-19 [ ] 20-21[ ] 22-23 [ ] 24-25[ ]

3. Year of study

   1st year [ ] 2nd year [ ] 3rd year [ ] 4th year [ ]

4. Type of the university

   Public university [ ] Private university [ ]

5. Which sport do you take part in? (**choose one sport**).

   Soccer [ ] volleyball [ ] Swimming / Athletics [ ]

   Hockey [ ] Basketball [ ] Tennis / Badminton [ ]

6. For how long have you represented your university in the sport above

   1 year [ ] 2 years [ ] 3 years [ ] 4 years [ ]

SECTION TWO. Sports Participation Constraints

Constraints are aspects that affect or may reduce university student's capability to take parti in sports. Kindly read each aspect and on the scale provided mark the section that denotes your honest opinion on the degree of your personal feeling on the several factors stated below.

Key: SD (Strongly Disagree) D (Disagree) N (Neutral) A (Agree) SA (Strongly Agree)

Constraint	**SD**	**D**	**N**	**A**	**S A**
1. The sports equipment that I need for my sport are too expensive					
2. The sports programs and services for my sport are poorly organized and managed					
3. Parental / Guardian pressure on my studies limits my participation in sports					
4. I do not like to interrupt my routine with sports					
5. I am always too tired to participate in my sport					
6. Sports facilities and equipment for my sport are inadequate					
7. I lack the required skills to enable me participate in my sport					
8. Sports facilities for my sport are always crowded					
9. Fear of failure or coaches blames limits my participation					
10. Opportunities to participate in my sport are not adequate					

11. Transport to my sport's facilities takes a lot of time and is expensive					
12. Lack of trained coaches at the university limit my participation in sports.					
13. I lack enough time to participate in my sport due to study commitment.					
14. Participation in my sport is very tiring and at times i am too tired to participate					
15. My friends do not have time to participate in sports with me					
16. Inadequate coaching services at the university limit my participation in sports					
17. Lack of participation in my sport because of cultural restrictions					
18. I Fear injuries sustained from sport participation					
19. I do not have friends to participate with					
20. I have health complications that limit my participation in sports					
21. I lack the required fitness levels to participate in university sports					
22. University sports facilities and equipment for my sport are poorly kept and maintained					
23. lack of participation due to adverse weather like raining or very hot					
24. I lack time to participate in sports due to family					

obligations and other leisure activities					
25. Sports is a man's territory and not the place for a woman					
26. Kitchen is where a lady belongs and not the field					
27. Lack of participation because competitive sports at time are too stressful					
28. Lack of modern equipment for my sport at the university limits my participation					
29. I have put excessive attention to my studies and neglected sport activities					
30. I lack encouragements from friends and family to enable me participate more					

SECTION THREE. Negotiation Strategies

Negotiation Strategies are means, ways or things that students do or can do to circumvent or lessen the barriers or impediments that deter them from taking part in sport. Kindly read each aspect and on the scale provided tick the section that greatest denotes how you try to remain active or progress your participation in sports.

KEY; NV (Never), R (Rarely), SM (Sometimes), RG (Regularly), VO (Very Often)

Strategy	**NV**	**R**	**S M**	**RG**	**VO**
1. I think about how important my sport is to me and give it consideration					
2. I budget my money to fit my sports activities					

3. I plan ahead of things and set aside time for my sport					
4. I participate in sports that are not very competitive to avoid stress					
5. I try to be organized to manage my academics and sports					
6. If I am not skilled, I swallow my pride and try my best					
7. I improve my fitness so that I can participate					
8. If I'm not skilled, I seek for help to get the required skills.					
9. I participate in my sport closer to where I live					
10. I improvise equipment and/or cloths I have for my sport					
11. I attend events that fit with my schedule and feel there will be others in future					
12. I participate when the facilities are not crowded.					
13. I ignore what the society and people think of me					
14. I wear protective equipment to prevent injuries					
15. I try to meet people with similar sports interests					
16. I practice regularly to improve my skills					
17. I cut short time for things to have time for sport					
18. I get up early or stay up late to recover time spent in sports					

19. I complete school work early to have time for sports					
20. I borrow equipment from other students so that I can participate					
21. I learn new skills to help me participate better in my sport					
22. I eat right and sleep more so that I don't feel tired to participate in sports					
23. I convince my parents on the benefits of sports to allow me play					
24. I inspire my friends to participate in sports with me					

APPENDIX D: KUSA CONFERENCES IN KENYA 2017

NAIROBI CONFERENCE; 21 Universities Kenyatta University, Machakos University, University of Nairobi, United States International University-Africa, Africa Nazarene University, Kenya College of Accountancy University, Jomo Kenyatta University of Agriculture And Technology, Strathmore University, KAG - EAST University, Catholic University of East Africa, St. Pauls University, Mount Kenya University, Adventist University, Daystar University, Technical University of Kenya, Africa International University, Pan Africa Christian University, Multimedia University of Kenya, Scott Christian University.

WESTERN CONFERENCE: 7 Universities Rongo University, Kibabii University, Maseno University, Great Lakes University of Kenya, Masinde Muliro University of Science and Technology, Kisii University, Jaramogi Oginga Odinga University of Science and Technology.

RIFT VALLEY CONFERENCE: 8 Universities Laikipia University, University of Eldoret, University of Kabianga, Maasai Mara University, Egerton University, Kenya Highlands Evangelical University, Moi University, University of East Africa Baraton.

CENTRAL CONFERENCE: 10 Universities Kirinyaga University South Eastern Kenya University, Murang'a University of Technology, Dedan Kimathi University of Technology, Meru University, Kenya Methodist University, Chuka University, Garissa University, Karatina University, Embu University,

COAST CONFERENCE: 3 Universities Taita Taveta University, Technical University of Mombasa, Pwani University.

APPENDIX E ETHICAL REVIEW CLEARANCE

KENYATTA UNIVERSITY
ETHICS REVIEW COMMITTEE

Fax: 8711242/8711575
Email: kuerc.chairman@ku.ac.ke
kuerc.secretary@ku.ac.ke
Website: www.ku.ac.ke

P. O. Box 43844,
Nairobi, 00100
Tel: 8710901/12

Our Ref: **KU/ERC/ APPROVAL/VOL.1** (120) Date: 16th August, 2018

KIONGO NDIRANGU
P.O Box 43844-00100
Nairobi.

Dear Ndirangu,

APPLICATION NUMBER: PKU/891/I951 "ASSESSMENT OF PARTICIPATION CONSTRAINTS AND NEGOTIATION STRATEGIES OF UNIVERSITY STUDENT ATHLETES IN SELECTED SPORTS IN KENYA"

1. IDENTIFICATION OF PROTOCOL

The application before the committee is with a research topic **"Assessment of Participation Constraints and Negotiation Strategies of University Student Athletes in Selected Sports in Kenya"** received on 8th August, 2018 and discussed on 14th August, 2018

2. APPLICANT

Kiongo Ndirangu

3. SITE

Kenya

4. DECISION

The committee has considered the research protocol in accordance with the Kenyatta University Research Policy (section 7.2.1.3) and the Kenyatta University Ethics Review Committee Guidelines AND **APPROVED that the research may proceed for a period of ONE year from 14th August, 2018.**

5. **ADVICE/CONDITIONS**

i. Progress reports are submitted to the KU-ERC every six months and a full report is submitted at the end of the study.
ii. Serious and unexpected adverse events related to the conduct of the study are reported to this committee immediately they occur.
iii. Notify the Kenyatta University Ethics Committee of any amendments to the protocol.
iv. Submit an electronic copy of the protocol to KUERC.

When replying, kindly quote the application number above.
If you accept the decision reached and advice and conditions given please sign in the space provided below and return to KU-ERC a copy of the letter.

PROF. JUDITH KIMIYWE
CHAIRMAN ETHICS REVIEW COMMITTEE

I ...KIONGO NDIRANGU...accept the advice given and will fulfill the conditions therein.

Signature.....Dated this day of...16th August..... 2018.

cc.

DVC-Research Innovation and Outreach

APPENDIX F: GRADUATE SCHOOL APPROVAL

KENYATTA UNIVERSITY
GRADUATE SCHOOL

E-mail: dean-graduate@ku.ac.ke
Website: www.ku.ac.ke

P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 020-8704150

Internal Memo

FROM: Dean, Graduate School

DATE: 31st July, 2018

TO: Mr. Kiongo Ndirangu
C/o Department of Recreation
Management and Exercise Science

REF: H108/37665/16

SUBJECT: APPROVAL OF RESEARCH PROPOSAL

This is to inform you that Graduate School Board, at its meeting on 25th July, 2018, approved your Research Proposal for the M.Sc. Degree entitled, **"Assessment of Participation Constraints and Negotiation Strategies of University Student Athletes in Selected Sports in Kenya."**

You may now proceed with your Data collection, subject to clearance with the Director General, National Commission for Science, Technology & Innovation.

As you embark on your data collection, please note that you will be required to submit to Graduate School completed Supervision Tracking Forms per semester. The form has been developed to replace the Progress Report Forms. The Supervision Tracking Forms are available at the University's Website under Graduate School webpage downloads.

Thank you.

HARRIET ISABOKE
FOR: DEAN, GRADUATE SCHOOL

CC. Chairman, Recreation Management & Exercise Science Department

Supervisors:

1. Dr. Elijah Gitonga
C/o Department of Recreation Management & Exercise Science
Kenyatta University

2. Dr. Nkatha Muthoni
C/o Department of Recreation Management & Exercise Science
Kenyatta University

APPENDIX G: GRADUATE SCHOOL RESEARCH AUTHORIZATION

KENYATTA UNIVERSITY
GRADUATE SCHOOL

E-mail: dean-graduate@ku.ac.ke
Website: www.ku.ac.ke

P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 020-8704150

Our Ref: H108/37665/2016

DATE: 31st July, 2018

Director General,
National Commission for Science, Technology
and Innovation
P.O. Box 30623-00100
NAIROBI

Dear Sir/Madam,

RE: RESEARCH AUTHORIZATION FOR MR. KIONGO NDIRANGU – REG. NO. H108/37665/16

I write to introduce Mr. Kiongo Ndirangu who is a Postgraduate Student of this University. He is registered for M.Sc. degree programme in the **Department of Recreation Management & Exercise Science.**

Mr. Kiongo intends to conduct research for a M.Sc. thesis Proposal entitled, **"Assessment of Participation Constraints and Negotiation Strategies of University Student Athletes in Selected Sports in Kenya."**

Any assistance given will be highly appreciated.

Yours faithfully,

MRS. LUCY N. MBAABU
FOR: DEAN, GRADUATE SCHOOL

APPENDIX H: MINISTRY OF EDUCATION RESEARCH

AUTHORIZATION

Republic of Kenya

MINISTRY OF EDUCATION

STATE DEPARTMENT OF EARLY LEARNING AND BASIC EDUCATION

Telegrams: "SCHOOLING", Nairobi
Telephone: Nairobi 020 2453699
Email: rcenairobi@gmail.com
cdenairobi@gmail.com

When replying please quote

REGIONAL COORDINATOR OF EDUCATION
NAIROBI REGION
NYAYO HOUSE
P.O. Box 74629 – 00200
NAIROBI

Ref: RCE/NRB/RESEARCH/1/64/VOL.I

Date: 30th October, 2018

Daniel Kiongo Ndirangu
Kenyatta University
P. O. Box 43844- 00100
NAIROBI

RE: RESEARCH AUTHORIZATION

We are in receipt of a letter from the National Commission for Science, Technology and Innovation regarding research authorization in Nairobi County on *"Assessment of participation constraints and negotiation strategies of University student athletes in selected sports in Kenya"*.

This office has no objection and authority is hereby granted for a period ending 29th October, 2019 as indicated in the request letter.

Kindly inform the Sub County Director of Education of the Sub County you intend to visit.

NAIROBI
25 OCT 2018

DRUSCILLA MOSIORI
FOR: REGIONAL COORDINATOR OF EDUCATION
NAIROBI

Copy to: Director General/CEO
National Commission for Science, Technology and Innovation
NAIROBI

APPENDIX I: NACOSTI AUTHORIZATION

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone: +254-20-2213471,
2241349,3310571,2219420
Fax: +254-20-318245,318249
Email: dg@nacosti.go.ke
Website : www.nacosti.go.ke
When replying please quote

NACOSTI, Upper Kabete
Off Waiyaki Way
P.O. Box 30623-00100
NAIROBI-KENYA

Ref No. **NACOSTI/P/18/89280/25459**

Date **29th October, 2018**

Daniel Kiongo Ndirangu
Kenyatta University
P.O. Box 43844-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on ***"Assessment of participation constraints and negotiation strategies of University student athletes in selected sports in Kenya,"*** I am pleased to inform you that you have been authorized to undertake research in **Embu, Kakamega, Kiambu, Kilifi, Nairobi, Nakuru and Nyeri Counties** for the period ending **29th October, 2019.**

You are advised to report to **the Vice Chancellors of selected Universities, the County Commissioner and the County Director of Education, Embu, Kakamega, Kiambu, Kilifi, Nairobi, Nakuru and Nyeri Counties** before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit **a copy** of the final research report to the Commission within **one year** of completion. The soft copy of the same should be submitted through the Online Research Information System.

GODFREY P. KALERWA MSc., MBA, MKIM
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The Vice Chancellors
Selected Public Universities.

The County Commissioners
Selected Counties.

COUNTY COMMISSIONER
EMBU COUNTY
30/10/2018

APPENDIX J: NACOSTI PERMIT

THIS IS TO CERTIFY THAT:
MR. DANIEL KIONGO NDIRANGU
of KENYATTA UNIVERSITY, 43844-100
NAIROBI ,has been permitted to conduct research in *Embu , Kakamega , Kiambu , Kilifi , Nairobi, Nakuru , Nyeri Counties*

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for the period ending:
29th October,2019

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Applicant's Signature

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