

## Promotion of Physical Activity Participation among Students for Health Benefits: A Case of University Of Dar Es Salaam, Tanzania

<sup>1</sup>Idah Jaribu, <sup>2</sup> Joyce Kanyiri

1.Research Student, School of Education, Moi University Kenya

2.School of Education, Moi University, Kenya

**Abstract:** Sustainable Development Goal number three aims to ensure healthy lives and promote well-being for all persons at all ages. World Health Organization recommends Physical Activity (PA) promotion in every institution for each individual in maintaining their health and wellbeing. Different organizations, public and private respectively in the world, are striving to curb the dangers of inactivity behaviors among populations by enacting PA policies and implementation of the same. The purpose of this study was to evaluate the strategies put to promote physical activity participation among the University of Dar es Salaam students in Tanzania. The objectives of the study were to: examine the utilization of university physical activity facilities and equipments, establish how the university supports students in physical activity participation, assess the university student's perceptions of physical activity participation, examine the benefits, challenges, and solutions to students during physical activity participation. Social support theory of Israel Schrumm and social cognitive learning theory by Albert Bandura were employed in this study. The study embraced concurrent triangulation design of mixed methods which involved collecting and analyzing data at the same time. The study targeted 28,000 University students, 1 University sport and games coordinator, and 1 University social service director. The data were generated using interviews, observation, and questionnaires from 309 participants. The findings indicate the number of strategies put by the university to promote Physical Activity (PA) participation and such strategies include; enacting and implementing the sports policy, physical/instrumental support, emotional support, and informational support. Also, 70% of participants established that the support would enable them to participate fully in PA if were well provided by the University. However, 64% of the participants reported **time for PA practices to be among the highly rated constraints for PA participation at the University.**

On the basis of the theory used in this study, to enable one to take part in PA there is a need for the provision of visible time in the university curriculum that will permeate full attention for PA for health benefits. However, the study concludes with the implication of the findings, indicating what is needed for the improvements in PA participation rates among individuals in higher learning education settings. Hence, the findings will help in the achievements of SDG 3 and consequently achieve the health target.

**Key words:** physical activity. Education, health, participation.

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### I. Background

Education in the 21<sup>st</sup> century even more recognizes the function of values and social skills in tackling universal challenges, such as inactivity, obesity, unemployment, and conflict through physical activity (UNESCO, 2017). Physical activity has recently proved to lessen the threat of dementia and improve mental health (World Health Organization [WHO], 2017). Therefore, promotion of physical activity is a priority for health agencies around the world. Effective, promising, or emerging interventions by professional organizations have documented that regular physical activity protects against coronary heart disease, type 2 diabetes, some cancers, hypertension, obesity, clinical depression, and other chronic disorders (Ladabaum, Mannalithara, Myer, & Singh, 2014). However, Physical inactivity is known as the fourth hazard cause for worldwide mortality coming about to an estimation of 3.2 million deaths around the world (WHO, 2018). Furthermore, Physical inactivity is likely to cause 22% of coronary illness and over 10% of type 2 diabetes and cancers of the breast, colon, and rectum around the world (Danaei et al., 2009).

Physical activity creates room for the release of emotion through exercise and furthermore advances a feeling of psychological wellness (Gidlow, Johnston, Crone, Ellis, & James, 2006; Armstrong & Edwards, 2004; Lubans, Plotnikoff, & Lubans, 2012). Likewise, partaking in physical movement is basic for self-advancement and gives chances to societal associations (Boustani, Peterson, Hanson, Harris, & Lohr, 2003; Holt & Neely, 2011). The use of movement, games, and sport as active and participatory tools in combination with

verbal expression has proved to provide a significant way to foster health in individuals living in contexts of schedules (Ley & Rato, 2013).

Farooq et al. (2018) and Kohl III, Fulton, and Caspersen (2000) disclose the sharp decline of physical activity participation during teenage and young adult years is due to the rise in the rate of progress from secondary education to tertiary training as of late. Similarly, tertiary-education campuses are settings where there are important opportunities to influence the physical activity habits of young adults, however, they are partially neglected (Osipov et al., 2018 & Leslie, Sparling, & Owen, 2001a). As a group, university students spend considerable time in a setting of activities that promotes sedentary behavior (particularly computer and Internet use) and are largely being educated for sedentary occupations (Owen, Leslie, Salmon, & Fotheringham, 2000). Therefore, by virtue of the educational level of the young adults, today's university students are our future social opinion leaders and policymakers and as such, their habits, beliefs, and attitudes will be influential in shaping the community norms and values. If sedentary activity patterns are developed and reinforced during young adulthood, it is probable that they will persist through adult life. To emphasize physical activity, the United States of America (USA) made Physical Education a compulsory course for all university students as revealed by (Leslie, Sparling, & Owen, 2001b) in their study. Furthermore, Racette, Cade, and Beckmann (2016) portray that, school-based physical activity promotion programs resulted in improvements in students' physical activity levels, cardiorespiratory fitness, and cholesterol levels as well as a reduction in time spent watching television, hence improved students' academic achievements.

The study done in Kenya, Magutah, (2013) found that most young adults (university students) are at higher risk of cardiovascular diseases due to inactivity and suggested that exercise regimes should be emphasized amongst university students, albeit with less regard to regularity, which should be encouraged for those in higher study years and those with higher Diastolic Blood Pressure (DBP) at exhaustion. In support of that Baalwa, Byarugaba, Kabagambe, and Otim, (2010) in their study found the dominance of obesity among young adults in Uganda and suggested that there must be significant timing for laying strong primary prevention interventions for students' health problems such as for overweight and obesity.

In Tanzania, John et al. (2017) found the prevalence of PA in the rural population was high compared to the urban population. Also, the studies found out that, farmers are active compared to people with professional jobs. However, there is a need for PA programs to maintain a high level of compliance during and following the transition to a more urban-based culture. Furthermore, Mayige and Kagaruki (2013 p.34) report that "overweight and obese (26%), raised cholesterol (26%) and raised triglycerides (33.8%)" among young adults. In the same study, the predominance of diabetes found to be 9.1% and 25.9% for hypertension among young adults and adults Tanzanians.

The Tanzanian government established an equipped policy, strategy, and action plan intended to diminish physical idleness and encourage physical activity as recommended by (WHO, 2019). In making sure that Tanzania populations are physically active, different strategies were put in place to enhance the health and mental well-being of the population. Despite all the efforts and initiatives that the government put to accelerate physical activity participation, little is known about how different institutions implement Physical Activity particularly, higher educational institutions, which have a considerable number of populations. This prompted the study which aims at exploring the strategies put in place by the university in promoting physical activity participation among students at the University of Dar es Salaam in Tanzania.

#### ***Statement of the problem***

Physical activity in Tanzania recently is of high priority due to the fact that the nation wishes to meet the physical activities global vision of 2025 that aims at maintaining people's health and prevention of non-communicable diseases, which are the results of human inactivity. Different government leaders, including the vice president of Tanzania in partnership with the Ministry of Health, other organizations have embraced several strategies to enhance physical activity participation which are, named 'Afyayakomtajiwako' (your health your capital), and "kata wese" (reduce fats) campaigns launched in 2016. Despite the above government and nongovernment efforts, increased student enrolment rates and fixed timetables limit students to participate in PA. Therefore, if PA participation is not given enough attention, inactivity will remain a leading factor to the death of 3.2 million people globally as reported by (WHO, 2018).

In the United Republic of Tanzania, the Education Sector Development Programme insists that time ought to be made accessible in the education institutions' timetable for physical exercises for all understudies (URT, 2004). However, studies done in Tanzania determine that there is a slight association by understudies in out-of-class activities such as music, sports, and other physical activity. Tluway, Leyna, and Mmbaga, (2018); John et al., (2017) and Frantz and Ngambare, (2013) reveals limited access to and participation by young adults and adults in physical activity, which is contrary to the Education Sector Development Programme directions. It is against this foundation that this study evaluated the strategies put to promote physical activity participation among students at the University of Dar es Salaam in Tanzania with a view of improving their health. Therefore, the discoveries of this investigation will be useful to the ministry of Education for curriculum developers on

how PA can be considered to be included in the curriculum, also the Tanzania Commission for Universities, students and university leaders will be made aware of ways on how to create awareness of the strategies to enhance PA participation, and use of space and facilities available.

### ***The study objectives***

1. To examine the utilization level of university physical activity facilities and equipment at the University of Dar es Salaam in Tanzania.
2. To establish the level of the university support to students in physical activity participation at the University.
3. To assess the university student's perceptions of physical activity participation.
4. To examine the challenges and solutions to students during physical activity participation

### ***Justification of the study***

The increase of non-communicable diseases leads the Tanzanian government to establish a variety of policies to increase physical activity participation among citizens which are implemented by both public and private organizations. Different organizations have increasingly shown responses to these policies. Universities are among the rational organizations in the country which have recently experienced the increase in students' enrolment rates that leads to the overcrowding of the facilities and resources like, class schedule hours (Damasa, 2016). In addition to that, the level of transition from secondary school to university, is often accompanied by healthy behavior changes such as; decreasing physical activity and increasing sedentary behavior because university students spend most of their time on sedentary activities such as studying, watching television, online gaming, computer activities, sitting and talking, shopping and hanging out (Deliens, Deforche, De Bourdeaudhuij, &Clarys, 2015a). Therefore, if action will not be taken individuals will continue to suffer from NCDs hence, deficiency in the labor force.

It is well known that deskbound life is not healthy, as it is said by Plato "... a healthy mind in a healthy body", as in the future, these students will be the leaders and manpower of the nation and the world at large. Therefore, there is a need to support them to be active-minded and maintain healthy bodies because, if there is no any encouragement to active life in body and mind, probably there will be a loss in education investment as the current and future workforce is the learned population and the economic benefits come from costs savings and productivity gains which are associated with population wellness.

Lately, little is known about the extent universities stimulate physical activity participation. This prompted the study to explore the strategies put by the university in promoting physical activity participation among students at the University of Dar es Salaam in Tanzania

### ***The Theoretical framework***

Theories are formulated to explain, predict, and understand phenomena and, in many cases, to challenge and extend existing knowledge within the limits of critical bounding assumptions. Social support theory by (Israel &Schurman, 1990) was employed in the study. As per the theory, support shields people from the dreadful prosperity impacts of boisterous dealings (i.e., stress-buffering) by affecting good behaviors or moderate or buffer the impact of psychosocial strain on physical and mental health.

More so, health behaviors are linked with this theory including bodily activity (physical activity). Also, it is commonly used in social and behavioral research. However, Israel and Schurman (1990) disclose that there is a significant deviation in the way social support is measured and conceptualized. Additionally, Social support for physical activity can include; instrumental / equipment and facilities/resources, as in giving the students playgrounds, gymnasiums, swimming pools physical activities equipment like balls, giving students the opportunity to participate in sports and PA by giving them available time schedules for SPA. Informational, especially in telling someone about sports and physical activities programs available at the University. Emotional support is through calling to see how someone is faring with a new sports and physical activity program or Evaluating by giving input and support in adapting new aptitudes (Israel and Schurman, 1990). Wellsprings of help for physical exercises incorporate college chairmen, companions, neighbors, universities, and exercise program pioneers, and members. Doing so will motivate students' self-efficacy that will lead to participation in the SPA.

## **II. Literature Review**

Sport is an area of human relations where respect for rules, teamwork and fair play are the norm (Foddy&Savulescu, 2017). Teamwork, cooperation, abiding by the rules, respect for opponents and similar concepts all feature in the principles of the Charter of the United Nations. Sports include all forms of physical exercise, whether local or imported, amateur or professional, casual or organized (Kenney, Wilmore, &Costill, 2015). There is no doubt that sports could play a critical role in attaining peace, development, and stability. In

the words of the famous Roman poet Decimus Junius Juvenalis, “*mens sana in corpore sano* – a sound mind in a sound body”. In other words, sports activities can help improve our minds and self-esteem and engender a general sense of well-being. For example, regular exercise can brighten the mood, increase energy and improve sleep, and it can supplement treatment for depression, stress, and anxiety (Bădicu Georgian & Balint, 2016). Thus, a physically active population significantly reduces national health expenditure, as fewer people get sick and people are more alert and productive. Furthermore, (Jarvie, 2014) in Africa, sports is a booming industry internationally (such as the European football clubs and others) which employs large numbers of people and generates significant revenues either directly in sports themselves or indirectly through associated activities, all of which contributes not only to the mitigation of poverty but also to raising the living standards.

### ***The Concept of Physical Activity***

According to (WHO, 2019), Physical activity is defined as any bodily movement produced by skeletal muscles that involve energy spending. Regular moderate-intensity physical activity – such as brisk walking, cycling, or participating in sports has significant benefits for health. Furthermore, (Haff & Triplett, 2015) depicts that, the term “physical activity” portrays numerous types of movement, including exercises that include the huge skeletal muscles and exercises that include the little skeletal muscles (for example playing table games, drawing, and composing) are imperative, yet they don't give the medical advantages of exercises that include the vast skeletal muscles and require considerable vitality consumption. For instance, (Piepoli et al., 2016) points out that, physical activities can lessen the danger of cardiovascular maladies, diabetes, colon and bosom malignant growth, and sadness. Additionally, satisfactory dimensions of physical activity will diminish the danger of a hip or vertebral crack and help control weight.

There are recommendations given by the WHO, 2018 due to the fact that physical inactivity is now identified as the fourth leading risk factor for global mortality. Thus, for children and young people of **5-17 age group** physical activity recommendations level includes play, games, sports, transportation, recreation, physical education or planned exercise, in the context of family, school, and community activities. In order to improve cardiorespiratory and muscular fitness, bone health, cardiovascular and metabolic health biomarkers and reduced symptoms of anxiety and depression, the following are recommended: Children and young people aged 5–17 years old should accumulate at least 60 minutes of moderate to vigorous-intensity physical activity daily; Physical activity of amounts greater than 60 minutes daily will provide additional health benefits; Most of the daily physical activity should be aerobic. Vigorous-intensity activities should be incorporated, including those that strengthen muscle and bone, at least 3 times per week (WHO, 2016).

**18– 64 years of age.** For grown-ups of this age gathering, physical movement incorporates recreational or relaxation time physical action, transportation (e. g. strolling or cycling), word related (for example work), family unit errands, play, amusements, sports or arranged exercise, with regards to day by day, family, and network exercises, so as to improve cardiorespiratory and solid wellness, bone wellbeing and decrease the danger of Non-Transferable Ailments (NCDs). Grown-ups ought to do no less than 150 minutes of moderate-power oxygen-consuming physical movement consistently, for 2 days in a week (WHO, 2016). Adults aged 65 years and above should do at least 150 minutes of moderate-intensity aerobic physical activity throughout the week, **or** an equivalent combination of moderate- and vigorous-intensity activity.

### ***Sports and physical activity participation***

The efficiency of regular physical activity in primary and secondary prevention of disease and premature death is well documented (DA, 2013; Warburton, Nicol, & Bredin, 2006; Lee & Skerrett, 2001; & Carrano et al, 2008). Despite unquestionable data on the benefits of physical activity, former researchers indicate that half of the high school students, one-third of university students and only a quarter of young people between the age of 25 and 30 do sports regularly. However, its prevalence stands at only 31% globally (Hallal, Andersen & Bull, 2012), and 1 in 3 adults do not exercise enough for their health (Finucane et al., 2011). Worldwide, obesity affects as many as 500 million people and this number is projected to grow to 1 billion by 2030 (Kelly, Yang, Chen, Reynolds, & He, 2008). The behavioral and lifestyle choices that people make early in life have an impact on their subsequent health status (Elsa-Grace, 2009 & Van & Barnard, 2011).

Entering university can be a life-changing experience as it is accompanied by heightened stress levels and the need to adapt to changes in lifestyle (Janse & Surujlal, 2013a). Noted at this time are increased risky behaviors such as drinking alcohol (George, Mugai, Mugai, Mugai, & Nyakwara, 2013), smoking (Janse van Rensburg, 2013b), poor dietary practices (van et al, 2011; George et al., 2013) and lack of physical activity (Delfien, Ilse, Tom, and Benedicte, 2015).

The American College of Sports Medicine empowers normal cardiorespiratory exercises – 150 minutes seven days of moderate-force exercise; or an hour seven days of overwhelming activity; or some blend of these is recommended for adults to reduce cardiovascular infection hazard factors, such as obesity and premature mortality (Garber et al., 2011).

It is notable that competitive sports programs are vibrant in primary schools and secondary schools in Africa. In these institutions, all students are expected to participate in sports at times for those activities that are scheduled and compulsory if not obligatory. However, sport programs in African universities are characterized by the participation of too few students and staff, sporadic engagement in competitions, lack of serious and systematic well scheduled competitions at local, regional and international levels, haphazard training programs, lack of publicity around the university activities, lack of involvement of senior staff, absence of structured intra and inter-university sport competitions, low female participation and absence of sport programed for students with disabilities has left many students athletes lacking in the necessary nutritional requirements to participate in sports.

#### ***The usability of physical activity equipment and facilities***

Physical action (PA) infrastructures concede youth dares to take part in PA, as determinants of sorted out and disorderly PA may contrast (MacKenzie, Brunet, Boudrea, Iancu, Bélanger, 2015). However, lack of availability of facilities that enable and promote physical activity may, in part, reinforce the lower levels of activity among populations (Powell, Slater, Chaloupka, and Harper, 2006).

Several studies involving the use of self-reported perceived measures have shown that there is a positive correlation between the availability of physical activity-related facilities and settings and various exercise behaviors (institute of medicine of the national academies, 2005; Booth, Owen, Bauman, Clavisi, Leslie, 2000; Huston, Evenson, Bors, Gizlice, 2003). However, (Prins, Mohnen, van Lenthe, Brug, & Oenema, 2012) shown that the accessibility of parks and sports facilities were not related with games and physical exercises participation, reasonably time allocated for leisure and sports had a great impact on sports and physical activities participation among the population.

The university is an essential setting for PA; the availability of facilities in school settings is associated with students' daily physical activity participation during schooling. Therefore, improving the sports and physical activities environment should be considered in physical activity promotion university programs (Haug, Torsheim, James, Sallis and Samdal, 2010). In the study done in Saudi Arabia indicated that the lack of facilities from the university hindered female students' physical activity participation (Samara, Nistrup, Al-Rammah, Aro, 2015). However, Yong, Hock, and Chee (2018) point out that, if individuals are motivated they are likely to participate in PA where they spend most of their time.

In Africa, most existing sports and physical activities facilities are in very poor condition and they need extremely heavy investment to bring them back to international standards. (Bogopa, 2001) mentions that the in South Africa, the schools within the townships and rural areas have no sports and physical activities facilities, unlike those in the rich suburbs in major cities or towns; the urban areas also have world-class stadiums and facilities which benefited from investment in hosting the World Cup in 2010.

#### ***The supports to promote physical activity (PA)***

The encouragement of PA is an important aspect of any population. Different studies conducted in the area indicated different strategies that can be used;

According to (Telford, Telford, Cochrane, Cunningham, Olive, Davey, 2016) establishment of different sports clubs has a great impact on sports and physical activities among the people. In addition to that, (Knox, Musson and Adams, 2015) point out that bosses who attest systems to support PA ought to empower representatives who have an obligation regarding elevating wellbeing to instruct their associates may help improve the Moderate-to-vigorous PA knowledge of their employees. Furthermore (Hills, Dengel and Lubans, 2014) argue that the university setting and physical educators, in particular, must embrace their role in public health by adopting a comprehensive university PA program.

The arrangement of additional equipment and supervision (Sallis et al., 2003), extra game equipment (Verstraete et al., 2006) and painting the school playgrounds (Stratton & Mullan, 2005) have demonstrated increased physical activity throughout the school day.

Capdevila, et al. (2007) set up that, so as to wipe out a portion of the hindrances that frustrate the likelihood of participating in functioning and solid way of life, the members ought to get input on their reasons towards physical exercise together with informing on the improvement concerning wellness.

The study done in China found that, to boost the PA levels in the populace, increasing sports facility proximity is effective (Guo, Dai, Xun, Jamieson & He, 2015).

#### ***Community's perception of physical activity among university students***

Researchers, for example, Peguero (2011) have demonstrated that inclusion in such school-based Sports prompts more noteworthy instructive accomplishment. Along these lines, as (Lunenburg, 2010 p.2) states that "extracurricular activities, by whatever name they are called, are an essential, vital, and extensive part of education". As many authors have pointed out, involvement in sports develops different life skills for jobs and for social life (García, 2012). Thus, implementing sports participation alongside the institution programs in the

education system would be part of the establishment of an integrated linkage system of education-employment-welfare. The teachers identified Social skills, management skills, communication skills, leadership skills, teamwork, decision-making skills, intrapersonal and interpersonal skills as being an important part of benefits gained through participation in sports (Soe, 2014) and further stated that learning outcomes set by the university are met directly or indirectly through the experiences and learning gained from participation in sports.

In (Anokye, Trueman, Green Pavey, & Taylor, 2012) study stated that understudies and instructors saw Physical exercises to be charming for understudies and gainful to their improvement. Further, in (Japhet, 2013) study conducted in Tanzania to explore views of stakeholders on effects of students participating in co-curricular activities including sports and physical activities found that Stakeholders were of the view that positive effects of students' participation in co-curricular activities outweighed the negative effects. (Schlesser, 2004) cautioned officials to be concerned about regardless of whether there is sufficient time to enable understudies to do both academic works as well as take part in sports activities. Most of the education practitioners consider that over-participation in and commitment to too many activities by students should be discouraged in order to help students balance their academic studies and sports. Also, there is a misconception that prevails in the minds of some students, teachers, parents as well as school authorities, that sports are trivial things to be undertaken by students, and so less consideration is given to supporting students. (Tanner & Tanner, 2007) pointed out that despite the broadly appreciated positive influence of sports and games on students, this has been entirely overlooked in recent national reports on the quality and condition of education. (Sohn, 2008) argues that the negative impacts associated with participation in sports and games activities may be related to the types of activity offered and poor organization by the institute.

### ***Opportunities and challenges of physical activity***

The graduation rate report published by the National Collegiate Athletic Association (NCAA) shows that athletes achieved an unequaled high graduation rate of 60%, contrasted with 58% for the non-competitor populace (Joy, 2004). In addition to that, the study conducted by (Soe, 2014) found that Sports involvement and the reputation of the university students attend helped provide opportunities for students to get jobs more easily. Sports give a channel to strengthening the exercises learned in the study hall, offering understudies the chance to extend the use of their academic skills in a more practical and free environment. Co-curricular activities are geared towards helping students to achieve excellence in their chosen subjects (Shehu, 2001) also, socialization (Maya, Monika & Kimberly, 2008). Robinson, Peleg, Rhodes, and Frantz, (2002) add that, extracurricular designed-activities provide students with a chance to apply leadership, organizational programming, and design skills to a project, where more than a grade is at a stake. Graduates are confronted with the problem of unemployment. Shaidi, (2006) indicated that after youths have completed schooling they often do not have sufficient aptitudes that they could use to begin independent work activities. This problem is also attributed to the weakness of the academic subject. In curbing that sports can provide an opportunity for employment when students given the opportunity to participate in the same.

## **III. Methodology**

The study was underpinned by the pragmatic paradigm, which concerns applications of 'what works' and solutions to problems (Patton, 1990). This paradigm was used because it enabled the researcher to get an insight into the problem as the qualitative characteristics were combined with those of quantitative to explore the strategies that were put by the university to enhance student participation in physical activity.

### ***Research approach***

The study employed a mixed-methods approach. Mixed methods research is an approach to an inquiry involving collecting both quantitative and qualitative data, integrating the two forms of data, and using distinct designs that may involve philosophical assumptions and theoretical frameworks. The mixed approach enabled the researcher, to understand the concern of sports and physical activity, by exploring strategies put by the university in promoting physical activity participation among students.

#### ***Research design***

The study employed a concurrent triangulation design whereby, is a type of blended techniques plan in which three analyst joins or unions quantitative and subjective information so as to give a complete examination of the exploration issue. The concurrent triangulation technique was viewed as significant as it empowered the researcher to utilize subjective and quantitative techniques to affirm, cross-approve, or verify discoveries inside a single study (Creswell, 2009). The plan enabled the researcher to get rich data on strategies put by the university to promote physical activity participation among university students at the University of Dar es Salaam in Tanzania.

### **Sample and Sampling techniques**

Sample size determination is the act of choosing the number of observations or replicates to include in a statistical sample. The study sample was determined using the online sample calculator (<https://www.checkmarket.com/sample-size-calculator/>, 2018) with a confidence level of 95% and a sampling error of 5%. For the sample of 28,000 university students, 379 students were selected. Through cluster random sampling 379 students participated in the study for the reason that they were representing all students of the same characteristics of whom they had equal opportunity to engage in sports and physical activities.

The director of social services was purposively and conveniently included due to his position. Social services director of the university is assumed to provide adequate information on the usability of facilities, strategies to promote physical activity

University Sports and games' coordinator is regarded as the supervisor and facilitator of all physical activity was included in the study. He provided data on how physical activity organized in the university, the status and use of university physical activity facilities and equipment, the challenges encountered and competency in supervising the activity.

### **Research instruments**

#### **Interviews**

In the study, Interview sessions were done face-to-face. The interview sessions were in both an unstructured and semi-structured form. The social services director and sports coordinator participated in face-to-face interviews which lasted between 45 and 60 minutes

#### **Observation Checklist**

According to (Neuman, and Robson, 2014) observation checklist refers to a list of things that an observer is going to look at when observing a phenomenon. With the help of an observation checklist, the researcher managed to observe various kinds of physical activity resources which are existing in universities and the status of facilities available. Furthermore, the researcher was able to observe how students participate in different PA in a natural locale. The method helped to expose some data that was scarce to be uncovered through other methods; therefore it complemented the interview and questionnaire data generation methods to ascertain the strategies put by universities to promote physical activity participation among students at the University of Dar es Salaam in Tanzania.

#### **Questionnaire**

The questionnaire is a research instrument, consisting of a series of questions (or other types of prompts) for the purpose of gathering information from respondents (Creswell, 2017). The questionnaire consisted of both quantitative questions and comprehensive qualitative questions for generating the quantifiable and unquantifiable information vital for the study. Comprehensive qualitative questions allow the free will of expression by participants by means of their own lexis, and so it was not easy to construct and compute the answers, therefore were subjected to thematic analysis. While closed questions (quantitative questions) restricted respondents to explicit responses in order to get data on the scale of the issues under study in terms of magnitude, therefore were subjected to statistical analysis. Questionnaires were distributed by the researcher with the help of research assistants to students who constituted the larger number of the sample and consented to participate in the study. Additionally, Questionnaires were a somewhat easy way of collecting a considerable amount of information, as the researcher administered them (Kothari, 2004). The questionnaires covered all the aspects that related to status, availability, and utilization of sports and PA facilities and equipment in the university, the motives to participate in sports and PA based on, the allocation of resources for and promotion of PA participation, the offers, public press for physical activity promotions made by the university, the benefits obtained from PA participation and the views on challenges and solutions for the involvement of students in physical activity.

#### **Ethical considerations**

The researcher adhered to the tenets and guidelines managing the underlying thought for issues in the moral field that researchers should address when planning and undertaking research. First, the researcher sought after approval from supervisors, then the research clearance letters from the following offices: From the office of dean of student for department of Educational Management and Policy Studies at School of Education at Moi University, then the letter helped the researcher to seek research permit from the Tanzania Commission for Science and Technology (COSTECH), before finally contacting the respective university authorities for the purpose of collecting and gathering data.

Secondly, the researcher visited the selected institution and introduced herself and the respondents were well informed of the purpose and importance of the study. This was done at the first contact at the beginning of data generation and, where needed, by providing an explicit explanation on the procedures that the study will follow and the participants were left with the introductory letter and consent form.

Thirdly, the researcher reserved the participants' names anonymous; also they have assured the privacy of the information given for the duration of the storage and processing of the data. In reporting, pseudonyms used to keep respondents' names unidentified. The researcher promised to utilize the information for academic purposes only.

#### **IV. Discussion Of The Findings**

##### ***The utilization of the University's Physical Activity facilities and equipment***

The findings show that the majority of the students, 65% participated in any physical activity and this signifies that they have developed the habit of participating in PA and have knowledge of the importance of PA. In the study, male participated more in team activity and female conformed to participate more in an individual activity. This seems to be the most activity the university has exposed the students to and has more facilities and space for it. The findings also show that despite the location of residence and the majority being off-campus residents by 59.3%, the majority indicated to use the university grounds for physical activity by 67.3% of the participants. The quality and conditions of the facilities indicated to be average by 46% and 50% respectively.

Furthermore the actual utilization of the facilities and equipment indicated to be low, despite the most student to show that they use university grounds for physical activity participation, whereby majority indicated to rarely utilize the university facilities by 33% of participants indicated rarely use of the same on a 4 point scale of measurement (rarely to always). The same is confirmed by qualitative data from the narratives of participants.

Physical activity facilities have a great influence on PA participation among individuals. Ayfer et al, (2017) point out that, facilities availability is among the determinants of one's participation in physical activity. Although among the requirements for PA participation being facilities and equipment, the university had provided space for PA participation and renovating the facilities as mentioned by the participants. However, the participants described to not fully utilize the facilities available at the University. This concurs with (Rod et al, 2018) who point out that, young adults participation in PA still low and the utilization of facilities available in the various institution are not in use. The reason for less utilization of the PA facilities is the structure and system of life which reduces the priorities of youth to engage in Physical Activity rather than sedentary life due to technology advancement in this era. The fact that the facilities are not in use, however, the participants pointed out the reason is the state of the facilities available which is not conducive lead to averaging the rating of the quality of facilities. Similarly, the study done by (MacKenzie et al, 2015) established that the low quality of PA facilities available hindered the utilization of the same hence low participation rates. However, Wahome and Wanderi, (2011) wrote that the facilities quality has no significant influence on physical activity participation. The participants' elaboration concurs with Wohome's study whereby some participants established that the participation in PA doesn't rely much on the quality of the facilities rather the space available of which the university does provide.

Additionally, Prins et al, (2012) indicated that the availability of facilities like parks and sports grounds were not associated with physical activity participation reasonably the time allocated for leisure activity had a great impact on PA participation among individuals in the population. Back to the study, the data indicate that there are time constraints for PA participation among individuals as described by participants which hindered the utilization of the facilities. Moreover, Pengpid (. 2013) points out that the utilization of the facilities available can be hindered by a variety of factors among them being interpersonal constraints including reinforcement from the significant others (i.e. spouse parent, teachers/trainers).

Furthermore, the participants added that they are unaware of physical activity programs and how to use the facilities which may have lead to low utilization of facilities available. However, PA participation is compulsory in primary and secondary schools than in Universities in most of the African context (Mwisukha et al, 2011). In view of the fact that the university is an important setting for developing habits of individuals, it still has a chance to make use of facilities available for promoting physical activity participation by providing vibrant awareness education on physical activity for the individual. Therefore, the university has to look for systematic well-scheduled competitions and structured intra and inter-universities physical activity programs which can provide reasonable time for the utilization of the facilities available to promote PA participation among the University Students and the community.

##### ***Support offered by the University for Physical Activity Participation among the students***

The study reveals that university provided a variety of offers to support PA participation among the students at the university. Though time offers indicated to be not well offered by the university whereby the majority of the participants disagreed with the presence of such offers by 64% which would be important for

enabling students participation if were to be adequately provided. The narratives of participants also confirm the inadequate time for PA. Other offers indicated to be well provided by the university i.e. informational offers that included advertisements in different forms, awareness of physical activity programs conducted at the university, recognition of good performance in PA, and free provisional of facilities and equipment for PA. Furthermore, the study reveals that, the presence of offers that the university provides enables individual participation in PA as indicated by 70% of the participants that the offers enable them to participate in PA at the university. Support offered by different persons to enable one to participate in PA is an important aspect of the population. The supports influence health behaviors i.e. Active lifestyle which maintains one's physical and mental health (Israel & Schurman, 1990). Support offered to individuals stimulates his self-efficacy as pointed out by Bandura, (1986) that, self-efficacy stimulated by the role model's actions and behaviors (i.e. administrators and managers). Moreover, the PA participation rate among person increases as a result of supports offered to them (i.e. instrumental, informational, and emotional support). In the study the participants established various supports offered by the university including informational support whereby the participants described being provided with the emotional support including provision of rewards as a recognition of good performance in PA programs, instrumental supports offered included provision of space and available equipments and facilities freely, other included employment of qualified personnel in managing PA programs. Also, informational support was offered whereby the participants reported being provided with information on PA events and programs available through their departments and notice boards as well as social networks like Whatsapp, Facebook, and Instagram. The findings are congruent with (Israel, 1990) theory that states that, different supports enable individual participation in PA if they are well provided. Moreover, Kubayi and Surujil, (2014) wrote that offers for PA have a great influence on PA participation among the population. Additionally, the participants in the study established that they are likely to participate more in PA if the supports are well offered by the University (c.f figure 4.5). However, Roy (2015) reports that, for all supports offered for PA participation to function, then the individual has to be intrinsically motivated first.

Furthermore, Knox et al, (2015) points out that, Education on the importance of PA has an important role to an individual to be intrinsically motivated to do exercise whereby, added that the employer who educates his employee on PA participation is likely to use less effort to embrace individuals through expensive support offers for one to participate in exercises. Notably for most of the universities are experiencing little budget for PA and sports (Schlessler, 2014). Therefore, they need to use alternative means of providing PA education in line with the established support. Also, participants in the study established that they are provided with jogging clubs which reinforces their participation in PA. This result is in line with (Telford et al, 2015) who points out that, the formation of various PA clubs a great impact on participation among people.

More so, students are influenced by several factors to participate in PA including facilities, their social environment, time availability and nature of academic pressure (Deliens, 2015). Although, all the mentioned aspects almost are offered by the university with the exception of time for PA participation which was identified as constraining to PA participation as the participants narrated that *time is not visibly offered*. Deliens et al (2015) wrote that in order to promote PA among university students there is a need to incorporate *PA time* in the curricula. Additionally, Sallis et al (2012) point out that, modification of environment and policies are highly needed in order to meet the requirements of promoting PA in this era of advanced technologies and life priorities of youth. Similarly, the study's data supports that whereby the participants described the implementation of the sports policy at the University which aims to promote PA participation of which in past years was not in action. Additionally, the finding concurs with that of (Gorobets, 2015) who established that the implementations of policy programs for PA raised the level and awareness of PA participation. Therefore, the policy enacted and implemented at the University for PA promotion needs to consider incorporation of time which seems to be the constraint to PA and lag behind the other supports offered hence to seem malfunction for PA participation.

### ***Student's perceptions of PA***

A clear understanding of PA among youth is of great importance (Biddle et al, 2004). However, an individual's attitude towards something drives his action towards it (Roy & Brad, 2015). Consequently, the way one interprets and perceives Physical Activity participation plays an important role in participation in the same. In the study, the participants established their perceptions towards PA participation whereby some identified that participation in PA is the responsibility of each individual in maintaining their health. This concurs with the recommendation of (WHO, 2018) which reports that each individual recommended maintaining their health through PA participation and other related active actions. Additionally, Tylor (2012) wrote that, most of the students and teachers in his study perceived PA to be enjoyable and of great benefits to their bodies and mental health development. Similarly, Peguero (2011) pointed out that, the positive perceptions of PA as the personal responsibility lead to an increase in participation rates in the same due to the fact that, most of the students viewed PA as an important aspect of their Educational achievements which results to better health. However,

this positive attitude towards PA participation should be emphasized in the foundation stages of individual development so that to keep the pace of liking and self- motivation towards PA participation. Although in the study some participants narrated PA participation to be part of students who are specializing in Physical Education and Sport science and no other students. This implies the scantiness of understanding towards PA participation because these participants seem to isolate themselves from the responsibility of maintaining their health. This is congruent with that established in (Schlessner, 2012) study who pointed out that, participation in PA tends to decrease due to discouragement received to athletes' students who fail in their academic study caused by the poor balance between PA and academic staffs. Also, Sohn (2018) argues that negative impacts associated with PA participation especially sport and game activities may be related to types of activity offered and poor organization by the respective institution. Although participants established negative perceptions towards PA participation as it is not their responsibility since theirs is to do their specialization courses, still, most of the participants perceived PA participation positively as they understand clearly benefits obtained from it. Similarly, Soe (2014) wrote that the learning outcomes set by the university are met directly or indirectly through the experiences of learning gained from participation in PA. The rationale for it being the social, economic, as well as healthy (body and mental) benefits obtained from participants in PA. Therefore, there is a need to encourage students to participate in PA and spread to them positive vibes of PA for their benefit in order to promote their participation rates in the same.

### ***The Benefits, challenges, and solutions to physical activity participation***

The study indicates that the student had different perception of Physical Activity participation at the university whereby most of them indicated to perceive it as a function and responsibility of the Physical Education students as they narrated to have not enough time for it because it is an extra responsibility to them and rather they do concentrate with class courses that are examinable so that they can excel into them while PA is part of them when they have free time after classes which is very infrequent hence, lead to giving less priority to the PA. Although others indicated to perceive the physical activity as part of their life and Education because they contribute to their health fitness and therefore this reason motivates them to participate in the same.

Physical Activity (PA) has several benefits as the participants identified. Mainly benefits identified include; healthy, employment, socialization, exposure, enjoyment, and others being sponsorships, leadership, and rewards. The established benefits concur with various studies that indicated and shown the importance of PA to the population for example, (Soe, 2014) wrote that, PA participation help students get job opportunities easily. Torrence et al, (2002) identify that, PA participation provides students with the chance to apply leadership skills also, established that it helps the students to solve the problems of unemployment. Also, Garcia, (2012) points out that, there are different opportunities for participating in PA especially games and sporting activities including healthy (mind and physical) living. Furthermore, the study is congruent with the (WHO, 2018) report that indicates various importance of participating in PA for human being development were healthy, employment, socialization, and enjoyment are vibrant.

However, there are diverse challenges identified by the participants including, time constraints, inadequate facilities, inadequate PA personnel also unawareness of PA programs. All mentioned above are harmonizing with different studies that found the same as (Ayfer et al, 2017; Peykari et al, 2015 & Tom et al, 2015). Although all the mentioned are constraints to PA participation among students, still other participants reported their individual priorities hinder them to participate in PA. This implies that education on the importance of PA for individual benefits needed. However, time feasibility should be made available for one to participate fully in PA at the University (URT, 2004).

More so, the participants suggested different solutions to the challenge they face for PA participation including, the establishment of PA units in the university normal classes which will permeate clear awareness of the part played by PA for individual benefits hence an increase in PA participation rates among the students. This is in line with (WHO, 2018) report that confirms that awareness-Education on the important position of PA participation has a great chance to increase participation rates. Also, MooSong et al, 2018 and England report, (2015) found out that the introduction of PA units and examination of the same in the subjects arouses awareness and motivation of PA participation among the students. Therefore, if this suggestion is implemented it can increase PA participation rates among the students.. Moreover, the participants established that there is a need to add more facilities and professional PA personnel for Managing PA at the University. This is in line with (Ayfer et al, 2017 & Millan et al, 2018) studies who argue that facilities and adequate qualified personnel are among the determinants of the levels of PA participation among individuals also implementers of PA participation interventions that should consider. However, self-determination among individuals is the main accelerator to the success of the solutions suggested because self-drive to PA participation makes easy for one to practice the same. Therefore, the University and other practitioners should seek to cultivate the culture of PA practice among the population that will be self-driven.

## V. Conclusion

Most of the participant students were off-campus residents. They were also rarely users of the physical activity facilities at the university. Therefore the university facilities available were not fully utilized.

The university offered different supports for PA participation among students, however, enough time was not visibly provided.

Most of the students perceived physical activity participation as for sports and games; few understood physical activity participation to be any bodily movement that leads to energy expenditure and that can help in maintaining good health as well as that participation in PA is individual responsibility.

The benefits revealed most from PA participation are employment, healthy and socialization however the most mentioned challenges for participation in PA are time limit, inadequate qualified personnel and facilities inadequacy.

Generally, The University had put a variety of strategies for PA participation for health inclusive the implementations of the sports policy which were not in consideration. However, the utilization of the PA space available still low which may imply the malfunction of the strategies put. Therefore, there is a need to incorporate the suggestion made by the participants regarding how PA can be promoted.

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