



Determinate Factors that Influenced University Students to use Sport Facilities in Private and Public Universities in Addis Ababa, Ethiopia

Tilahun Beredet Shiferaw¹, Habtamu Demelash Desta²

1 Kotebe University of Education, Department of Sports and Physical Education, Addis Ababa, Ethiopia, corresponding author, beredettilahun@gmail.com, P.O. Box 31248

2 Kotebe University of Education, Department of Sports and Physical Education, Addis Ababa, Ethiopia, corresponding author, beredettilahun@gmail.com, P.O. Box 31248

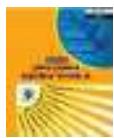
Abstract

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The purpose of the study was to determine factors that influence students' use of sports facilities among undergraduate students in 8 private and public universities. The study used a survey method to determine the factors. The sample contained 624 students, who were selected by using random sampling techniques. The study used a quantitative research design. To collect data and information, a close-ended questionnaire was used. All variables were analyzed and tested by using the Statistical Package for the Social Sciences (SPSS) Version 20 software. To analyze descriptive statistics such as frequency and percentage, a Chi-Square test was employed with the alpha value of .05. as a part of inferential statistics. The results indicated that, a total of 624 undergraduate students, 251 (40.2%) were female and 373 (59.8 %) were male. In the current study, only 107 (17.2 %) of students used university gymnasium facilities. As a result of chi-square test analysis, there were significant difficulties in using university gymnasium facilities ($p < 0.01$). Based on the findings, the researchers concluded that sex, experience, time to exercise, alcohol and tobacco usage, lack of extracurricular activity, exercise friends and gymnasium facilities were determinate factors for using university sport facilities.



1. Introduction

People have experience of performing physical exercise in different fitness centers. There are many factors that influence doing physical exercise in the gym. In human life, there are several factors in day-to-day life activities that can create a healthy or unhealthy life (Hanaa G. and Nedaa A., 2015). Physical activity behavior is influenced by biological, psychological, and environmental factors. Many socio-cultural factors affect personal leisure values and involvement in day-to-day physical exercise. These may include age, gender, sexual orientation, racial and ethnic identity, and socioeconomic status. To understand the major changes, such kinds of experience simply follow children's growth. Actually, this involvement is also the same thing that holds true for adults. The greatest barrier for low socioeconomic adolescents is their participation in physical exercise at gymnasiums and fitness centers (Dagkas&Stathi, 2007; Humbert et al., 2006). In Ethiopia, these barriers are also observed among private and public university students. In addition, the availability of community recreation centers and daily exposure to physical education are also considered as environmental factors for adolescents' participation in physical exercise (Gordon-Larsen et al., 2000). The majority of gymnasiums are built in universities and hotels, but these facilities are not available within a defined space and operate in inefficient ways.

Most people may think that the unavailability of materials, facilities, and equipment are major factors in the inability to perform physical activities. Especially for students who enter university or

college, their diets in university will be a challenge (Hanaa G. and Nedaa A., 2015). Some studies like Strong (1990) found that teenage females had a higher chance of stopping engaging in physical activity than males because of a lack of fun and it demands too much time. It is obviously seen in the world as well as in Ethiopia that there is cultural and societal influence on girls' fitness participation. Other barriers for younger females, as investigated by Humbert et al., 2006; Tergerson& King, 2002), include a lack of time and motivation for physical exercise. In Ethiopia, females are not given the same recreational and luxurious time as boys by their parents. Surprisingly, this is continuous as a culture up to the end of their university life. In every nation, it is clearly observed that males generally cite competition and females more often mention weight management as reasons for participating in physical activity (Ammouri et al., 2007).

Currently, youth age groups are advised to engage in at least 60 minutes of moderate-to-vigorous physical activity on most days of the week (USDHHS, 2008; CDC, 2010; and NASPE, 2009). In university or college, students can create a healthy lifestyle. But as said by Lawrence R. et al. (2019), there are many reasons to be more sedentary with age than before. It may be due to health problems, weight or pain issues, psychological issues, or possibly you think that exercising simply isn't for you. Most people in school or universities have to accumulate good experience to change their healthy lifestyle and persist with it throughout their entire life. As people grow older, an active lifestyle is going to be the right decision for a



healthy lifestyle, longevity, and adding extra years to your life (Lawrence R., et al. 2019).

For students, the contribution of recreation centre activities and programs to the quality of life at their institution has been a greater factor for students when deciding to continue at their college or university (Forrester, S., 2014). Physical exercise is very essential for body development and brain growth. But it is not common in the adolescent age group to meet the recommended guidelines, which are set by international organizations. For that reason, it is better to investigate the awareness of facilities, types of exercise, musculoskeletal pain, or other disease, on the other hand, are considered factors for performing physical exercises (Zheng J & An R. 2015; Roubal AM et al., 2015; Edwards MB et al., 2014; Ptomey LT et al., 2016). Sometimes universities may have sports facilities and programs for physical activities, but such kinds of preparation should consider students' interests.

In recent years, inactive lifestyle factors relating to the total health of university students have encouraged universities to become accustomed to their gymnasium or recreational services for students (Castle et al., 2015). According to the CDC (2010), insufficient physical activity can lead to an increase in obesity and other poor health outcomes such as diabetes, hypertension and stroke, cardiovascular disease, some cancers, depression and anxiety, sleep disorders, weak muscles and bones, and early death. Physical exercise participation in different sports facilities can provide a healthy life. In gymnasiums, both sexes might not have the same number. In one

adolescents to understand which factors influence physical activity participation to meet guidelines. According to Park and Kim (2008), physical activity in adolescents is highly reliable and determined by a number of factors. These factors include biological, psychological, and environmental conditions that highly affect physical participation (Spence & Lee, 2003). But sometimes individual-level interest is also a factor for participating in physical exercise in sports facilities. The affected factors of this interest were gender, educational attainment, health-motivated interest, and appearance-motivated interest (Chen C. et al., 2017). The availability of sports study, males had more experience than females in using fitness centers (Miller et al., 2008). As well, according to Castle J. (2015), males are more likely to use their fitness facilities on campus than females. This result indicates there is no equal opportunity for girls to preserve their health through physical fitness in sports facilities. For young male and female students, the most important factors are making physical activities fun and involving friends in the practice (Humbert et al., 2006). Physical exercise is not just for boys; it is also for all girls. It is believed that social influences can influence young people's participation in physical exercise. Practicing with parents, friends, teammates, and other members of the community will be a valuable and important experience for adolescents for both sexes (Ries et al., 2008). If not, the result will be negative engagement. Hence, lacking experience with people will be a fundamental factor in their university sport participation because of previous experience or practice.



In Ethiopian universities, there are sports facilities like football, volleyball, basketball, and athletics fields. However, most campuses have a limited number of gymnasiums. Many students are not using these sports facilities. The best thing to enhance gymnasium or sports facilities is university presidents, vice presidents, deans, directors, and heads need to be aware of factors related to fitness and fitness center usage within the university. Such

comprehension will assist university fitness managers in implementing their knowledge to students, preserving students' health and wellness during university life; perhaps it will continue even after graduation.

Objective

The objective of the study was to determine factors that influenced university students' use of sports facilities in private and public universities.

Methods

Study Area

The study area is located in Addis Ababa, which is the capital city of Ethiopia and the headquarters of the African Union. In Addis Ababa, there are many public and private universities that are teaching students in undergraduate and postgraduate programs in various departments. In this study, public universities such as Kotebe University of Education, Addis Ababa University, Defence University, and Civil Crevice University were included as study areas. Moreover, Admas University, Unity University, Refit Valley University, and St. Marry University were from private study areas.

Study Design

This study was a survey to determine factors that influenced university students' use of sports facilities in private and public universities. This study used both quantitative and qualitative research design, and data was collected through questionnaires in private and public universities with the help of data

collectors.

Study Population

In this study, the target population was undergraduate students from public and private universities. Moreover, both female and male students from year one and above have been involved in the study. This students' involvement in the study was based on their volunteerism. All undergraduate students who participated in physical exercise in these public and private universities have had an equal chance to fill out the questionnaires. The total population of the study was 1200 students.

Sampling Technique and Sample Size

Due to the large number of students in these universities, the researchers used random sampling techniques to make data collection easier. The sample size contained 630 students from private and public universities.

Ethical statement

The research participants were not subjected to harm during the study. The researcher conducted the research by preserving the privacy and respecting the



dignity of participants. Full consent was obtained from the participants prior to the study. Participants understood that the study was no harm to them. Besides, the researcher informed all subjects that the questionnaire was prepared only for research purposes. Based on that, respondents agreed to give their valuable information to data collectors in the specified period.

Methods of Data Collection

The study was based on quantitative types of data. The researchers used a close-ended questionnaire to collect data. To ensure data quality, the researcher adapted and revised the questionnaire from a prior survey and corresponding research that assessed physical exercise within the college population (Zizzi, Ayers, Watson & Keeler, 2004).

Results

In this section, demographic information and other statistical data such as frequencies, percentages, and the Chi-Square method of analysis were employed.

1.1.Demographic characteristics of Respondents

Table 1: Demographic information for participants

Demography information		Frequency	Percent
Sex	Female	251	40.2
	Male	373	59.8
	Total	624	100
Age	15-20	143	22.9
	21-25;	472	75.6
	26 and above	9	1.4
University	Total	624	100
	Public	338	54.2
	Private	286	45.8
University Gymnasium facility	Total	624	100
	Users	107	17.1
	Nonusers	517	82.9
Total		624	100

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The questionnaire was distributed randomly to undergraduate students at private and public universities. To collect data, questionnaires were distributed and collected by trained and professional data collectors from the entire private and public university campuses.

Description of Data Analysis

All variables were analyzed and tested by using the Statistical Package for the Social Sciences (SPSS) Version 20 software. This includes descriptive analysis such as frequency and percentage. In addition, the Chi-Square test was employed to determine the factors that influenced participation in university sports facilities with the alpha value. as a part of inferential statistics.

The researcher distributed 630 questionnaires for undergraduate private and public students. However, 6 questionnaires were not returned to the researcher. Due to that, the analysis was conducted for only 624 respondents.



Source: Compiled from SPSS primary data, 2019 sports facilities.

As it is indicated in table 1, the sample consisted of a total of 624 undergraduate students, 251 (40.2 %) female and 373 (59.8 %) male students. From the collected data, more male students were observed. Besides, in public universities, male respondents dominated in number, whereas in private universities, female students dominated. It is expected to maintain balance in universities for equal opportunities in education and physical exercise for both sexes.

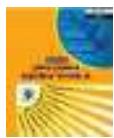
Table 1 also proves that only 107 (17.2 %) of students used university sports facilities. This shows that in these universities, very small numbers of students participate in gymnasiums and sports facilities in universities. It needs extra work from the universities' side to bring students to

The majority of students' age was between 21 and 25 years old. They were totaled at 75.6 percent. This age is suitable for any type of physical activity. In this study, there were 338 (54.2 %) students from public universities and 286 (45.8) from private universities. In public universities, students come from every corner of the country; sometimes Ethiopian universities are called small Ethiopia. Usually, their living expenses and educational fees are covered by the government. But in private universities, the majority of students came from both city administrations (Addis Ababa and Dire Dawa). Perhaps students in private universities were self-sponsored to attend their academic classes.

Factors that Prevent Students from Sport Facilities

To identify factors that influence participation in sports facilities, a non-parametric chi-square goodness of fit test (also referred to as one-sample chi-square) was used. It was hypothesized that sex, religion, year in university, age, living place before joining the university, living place after joining the university, university they are studying, GPA, extracurricular activities, tobacco use, alcohol use, time periods to go to gymnasium, health concerns, were identified for those students on their campus.

knowledge about the benefits of regular physical exercise, pocket money, how often have you used the fitness/gymnasium last month, time spent, going with friends, means of transport and gymnasium facilities would all be significant factors in determining participation in university gymnasium fitness facilities. In the following table 2, based on the data collected, major factors.

**Table 2:** Chi-Square test Results of Factors that Influence participation in sport facilities

Variable	Degree of freedom (df)	X ²	P value
Sex	1	12.070	.001
Religion	2	.240	.887
year in University	5	16.699	.005
Age	2	15.903	.000
Living place before joining the university	5	27.193	.000
Living place while attending university	2	65.922	.000
University they are studding	1	88.130	.000
Studding for GPA	2	4.782	.092
Extracurricular activity	5	42.488	.000
Tobacco	3	22.949	.000
Alcohol	4	12.622	.013
Time periods to go gymnasium	4	31.822	.000
Health concern	8	7.294	.505
Knowledge about the benefits of regular physical exercise	1	22.448	.000
Pocket money	4	7.556	.109
How often have you used the fitness/gymnasium last month	4	300.710	.000
Going with friends	4	130.461	.000
Means of transport	4	2.198	.699
Gymnasium facilities	1	20.329	.000

Source: Compiled from SPSS primary data, 2019 According to table 2, quite a lot of variables were found to be statistically significant in influencing the use of university sports facilities. The following variables were found to be statistically significant factors for participation at a significant value p .001 level: these are Sex, year in university, age, living place before joining the university, living place while attending university, university they are studying, extracurricular activities Tobacco, time periods to go to the gymnasium, knowledge about the benefits of

regular physical exercise, How often did you use the fitness/gym last month? Going out with friends and using the gym facilities Furthermore, both variables such as alcohol consumption and GPA studding were significant factors for participation at a significant level of p.05. Religion, means of transportation, health concerns, and pocket money were not significant factors for physical exercise participation in sports facilities at a p-value of .887, .699, .505, and .109, respectively.

Discussion

In parallel to academic classes, performing physical

exercise has substantial benefits for both promoting

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health and reducing mortality rates (Chen C., et al., 2017). In this study, only 17.1 percent of male and female students participated in physical exercise, which was small. Low participation for younger university students is not advisable for their health. As a result, encouraging university students to participate will be beneficial to their long-term well-being. Many countries in the world are working on physical exercise participation in universities to achieve 60 minutes or more of daily activities, for example, in America.

In this study, many students had factors that prevented them from using fitness centers to perform physical exercise. These factors come from the university and the students themselves. For instance, excessive school work, facilities unable to open early, facilities that are too far from their living arrangements, and facilities that are too crowded were factors for the majority of students, who come from universities. On the other hand, other factors such as exercise is not a priority for them, they do not have an exercise partner, they do not know how to use the machines, and they are too lazy to perform physical exercises come from students. Many studies say that environmental factors such as gymnasium costs, facilities, arrangements, and personal commitments can prevent physical exercise engagement at gymnasiums and fitness centers (Dagkas&Stathi, 2007; Humbert et al., 2006). Improving sports facility arrangements and inspiring students to participate in physical exercise will help the country to have a healthy society. Eliminating preventive factors for university students is the responsibility of private and public university higher officials.

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Sex in this study was a factor for students' physical exercise participation in sports facilities. Many studies have found that teenage females stop participating in physical activity earlier than males because they lack time, fun, and motivation (Strong, 1990; Humbert et al., 2006; Tergerson&King, 2002). At Ethiopian universities and other private sports facilities, most of the time, males dominate. Due to that, males had more experience than females in using university gymnasiums or other fitness (Castle J., 2015; Miller et al., 2008). The result indicated that there was no equal opportunity for boys and girls in fitness centers. Boys and girls had unbalanced participation in university sports facilities. In fact, this was also observed outside city facilities.

Age was also one of the factors for their usage in fitness or gymnasium facilities. At a young age for males and females, there is a stronger recommendation for adolescents to perform 60 minutes of physical exercise each day for optimal body health and brain functioning by making physical activities fun and involving friends in the practice (CDC, 2010; Humbert et al., 2006). But these days' university students are usually following a sedentary lifestyle, which is the incidence of their high overweight and obesity (Lou D., 2014; Ogden CL. et al., 2014).

Living arrangements before joining the university and while attending university were additionally a factor to consider when involved in gymnasium facilities. Environmental factors such as facilities and living arrangements are the greatest obstacles that can



determine involvement in physical exercise (Dagkas&Stathi, 2007; Humbert et al., 2006).

Using gymnasium facilities, experience such as extracurricular activities, is very important for an active lifestyle in academic institutions. According to Luke E. et al. (2018), various factors, including extracurricular activity, can affect the exercise habits of university or college students on their campus. Experts agree that academic performance increases when children use their free time with their family by performing extracurricular activities like sports (MasonK., 2015). Sports activities as an extracurricular activity within universities help students develop additional life skills. Moreover, if the student has extracurricular experience in sports activities, it will inspire him/her to participate in sports throughout his/her entire life.

It was observed in this study that tobacco and alcohol consumption can determine participation in sports facilities. Moreover, it can change a student's healthy lifestyle. Barnett et al. (2013) confirmed that university or college-based life is a very important season for bad or good healthy lifestyles that will influence future entire lives. Good health is fundamental for individuals' quality of life; more specifically, health can be affected by many factors such as personal health, lifestyle, and social and cultural issues (Dahlgren and Whitehead, 1991). Because of a bad health lifestyle, many students suffer from obesity, anxiety, depression, and other health conditions. But these non-communicable diseases can be managed by physical exercise participation in university fitness facilities.

According to this study, students are interested in going with friends for exercise. Practicing physical exercises with parents, friends, teammates, and other members of the community will be a valuable and important experience for adolescents of both sexes (Ries et al., 2008). Therefore, making new friends can inspire them to get involved in physical exercise. Additionally, students participating with their friends or classmates will be important components to providing their socialization on their campus, which will also facilitate sharing culture, knowledge, and experience. Otherwise, unavailability of friends will be a factor in using sports facilities.

Moreover, in this study, based on the respondents' responses, the unavailability of an exercise partner, living arrangement distance from facilities, lack of knowledge about exercise, being too lazy, lack of awareness about the importance of physical exercise and the late opening of facilities for their schedule determines their physical exercise participation. In 2010, most American students were not in a position to perform 60 minutes of physical exercise, but these days Americans are primarily working on achieving their youths' 2020 healthy lifestyle guidelines. In Ethiopian universities, this manner towards students will be vital for better health. As a result of this study, student GPA also determines physical exercise participation in public and private university students in Addis Ababa city. Most of the time, students believe that sports activities consume their time. According to Jensen (2008), physical movement and activity in the classroom for 20 minutes is important to activate the body as well as the mind. An activated mind and body can bring successful academic achievements in



university life. In this study, religion, ethnicity, means of transportation to a gymnasium, health concerns, and pocket money were not factors for physical exercise participation. In other studies, factors including biological, psychological, individual-level interest,

health-motivated interest, musculoskeletal pain or other disease are considered factors for performing physical exercises (Spence & Lee, 2003; Zheng J & An R., 2015; Roubal AM et al., 2015; Edwards MB et al., 2014; Ptomey LT et al., 2016).

Conclusion

Based on the data collected and its interpretation, sex, year in university, age, alcohol, GPA, living place before joining the university, university, university where they are enrolled, Extracurricular activity Tobacco, time periods to go to the gymnasium,

knowledge about the benefits of regular physical exercise, How often did you use the fitness/gym last month? Gymnasium facilities and going with friends were determinate factors in using university sport facilities

Funding Declaration

This study was not funded by any organization.

Conflict of Interest

The authors declare that they have no competing interests.

Author Contribution

These authors collectively contributed the following activities to the entire work of the study: These are topic selection, analyzing and designing the data

analysis, collecting the data, preparing data analysis tools and conducting analysis, and writing the final paper.



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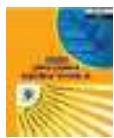
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