# The motivation of fresh students for physical fitness course and its relation with contextual factors: The case of Bahir Dar University

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**Abstract**

Motivation can be seen as a major factor in improving physical exercise behavior among people. Despite this, a large number of university students do not meet the minimum expectations. This study intended to evaluate motivations for Physical Fitness course among university fresh students and their relation to contextual variables. The cross sectional research design consisted of 323 sample students at Bahir Dar University. The age of the majority students (n= 216, 66.9%) was 20. The motivation physical fitness course and its relation to contextual variables (gender, religion, educational stream, and residence area) were assessed using the adapted Exercise Self-Regulation Questionnaire (SRQ-E) and analyzed descriptively. Based on the data collected and analyzed the following findings were obtained. The overall mean of students' motivation for physical fitness course was below the average (2.85). The mean scores of most motivational variables did not show significant statistical difference across gender, religion, and residence area ($p<.05$). However, there was a statistically significant difference between Orthodox and Islam students in only introjection motivation ($p <. 05$). Similarly, there was also a statistically significant difference between students who came from families living in big cities and woreda towns in intrinsic motivation ($p<.05$). As far as educational stream was concerned, there was a statistically significant difference between natural and social science students in the two motivational variables: identified regulation and external motivation ($p<.05$). To understand the motivation of freshman students for physical fitness course in universities, future research needs to consider the direct effect of some other contextual variables

**KEYWORDS**: motivation, fresh students, physical fitness course, contextual factors

## Introduction

Physical fitness exercise is a subclass of Physical Education and Sports Science that is intended, structured, and purposeful

to improve physical fitness traits and enhance the quality of life among students (WHO, 2010; Lucy, 2015). At present, there is a concrete report that reveals the numerous and holistic functions of physical exercise for youngsters who regularly exercise it (Warburton, Taunton, Bredin, & Isserow, 2016). Physical exercise has also been proved to be important in preventing and treating heart-related complications and reducing death from several chronic diseases (Naci & Ioannidis, 2015; Lee, et al., 2012). The absence of physical exercise in human's life has been linked to many types of cancers (Leandro, et al., 2018), neurological syndromes such as dementia (Larson, Wang, and Bowen, 2006; Eric, et al., 2006), and psychological complications, particularly depression, (Roh, Hong, Lee, Lee & Chang 2019). This implies that physical exercise is an effective and cost-effective strategy to have better psychological health, efficient body organs, and productive citizens.

Given the holistic values of physical exercise and the roles it plays in promoting a healthy lifestyle, particularly for the youth, it needs special attention, (Lee, et al., 2012, Lucy et al, 2015, Capranica & Millard-Stafford, 2011). Conversely, sedentary lifestyle during adolescence can expose people to various health complications in the later age. An inactive lifestyle is a major cause of the development of high blood pressure, heart-related disease, osteoporosis, type II diabetes, and breast as well as colon cancer (Garrett, et al., 2004). Studies have also shown that students who regularly engaged in physical exercise and games have better cognitive ability, physical capability, self-confidence, clarity of self-concept, emotional regulation, and well-being (Naci & Ioannidis, 2015; Eime, et al., 2013; Lee, et al.,2012; WHO, 2010).

Given its importance, physical fitness course is subsection of physical education and sports in universities of Ethiopia. Physical fitness course as well as exercise is a major protective means for most physical, social, spiritual, and occupational-related disorders, laying the base for lifetime wellbeing (Ribeiro & Milanez, 2011). It is essential to identify the different factors (e.g., intrinsic motivation, concern for the perceived value of physical exercise, and social related factors) that affect students' participation in physical exercise workouts (Lewis, et al., 2016; Babic, et al., 2014).

The earlier mentioned positive effects direct to promotional actions in the young population with the greatest impact on the university students and this is also the time that will meaningfully affect their adulthood (Maldari & Garcia, 2021). At this stage, physiological, socio-emotional and habitual modifications will be established (Connor, et al., 2011). As a result of all these changes, there is a decrease in activity and even withdrawal from exercise (Sinclair, Hamlin, & Steel, 2005). The reduction of physical activity varies unevenly by gender, as this decline is revealed more among females (Han, Dinger, Hull, Randall, Heesch, & Fields, 2008).

In the higher education context, motivation is the most important psychological variable that causes arousal, direction, and maintenance or withdrawal from physical exercise (Iker, Josu & Isabel 2021; Dhurup, 2017: Buckworth, Lee, Reganc, Schneiderd, & Di Clemente, 2007), and it's related to intrinsic, identified, introjection, and or external reward (Ryan & Deci, 2000). The level of motivation of students to attend physical exercise workouts influences their participation (Iker et al., 2021).

Consistent with this conceptual definition of motivation, the motivation of university students to physical fitness course is unknown. As far as the knowledge of the researcher is concerned, it is one of the least studied issues, particularly in the Ethiopia and sub-Saharan context. Existing studies also measured the motivation of students for physical exercise, fitness and sports without or with limited consideration of the contextual variables of the participants (Kilpatric, Hebert, & Bartholomew, 2005; Jorge, Soares, & Roland, 2013; Wei-Yang, & Chih-Chao, 2019).

Males are motivated by intrinsic motives while females by extrinsic motives (Egli, Bland, Melton, & Czech, 2011).Other authors found that females got better scores on motivation than males in intrinsic motivations (Telama, and Yang, 2000; Fortier, Vallerand, Briere, & Provencher, 1995). In the latter study, the females were sportswomen having athletic experience. Thus, it is important to analyze the motivational differences among university students in terms of their gender and other contextual variables. In the students' motivation literature, contextual variables, particularly the motivation to participate in physical

exercise workouts, in relation to educational stream and family residence is an understudied issue. In this study, the author addressed these gaps and assessed motivation for physical fitness workouts in relation to four contextual factors.

Evaluating the motivation of students to learn physical fitness course and related factors would help education, fitness, and sports organizations to understand the details of students' motivation issues from their contextual perspective. This is mainly important for higher education centers in Ethiopia and beyond in relation to development of appropriate strategies to enhance motivation level of the learners for their personal development and achievement of individual goals. This also makes the organizations to be preferable and sustain themselves in the market (Tsitskari, Tzetzis, & Konsoulas, 2017).

Student's level of motivation to physical exercise workouts depends on their contextual difference and other related reasons (Zagalaz, Moreno, & Cachón, 2001, as cited in Iker, et al., 2021). Once the reasons related to their contextual deference clearly identified, it is easy for concerned bodies to design specific intervention programs for a specific group of students to ensuring quality physical exercise experiences that promote lifelong physical exercise habits.

The main purpose of this study, therefore, was to analyze the motivation of Bahir Dar University freshman students for physical fitness course and its relation to contextual variables. More specifically, this study aims to answer the following basic research questions.

(1) What is the motivation of fresh students for physical fitness course at Bahir Dar University?
(2) Is there a statistically significant difference in score of fresh students' motivation for physical fitness course across contextual variables at Bahir Dar University?

The findings of this study are expected to be vital in identifying students' needs in relation to motivation to physical fitness course. This, in turn, will help the department of Physical Education and Bahir Dar University at large to have a better understanding of freshman students' motivation vis-à-vis the participating of physical fitness course.

**Conceptual Framework**

This study is conducted in line with the Self Determination Theory (SDT) particularly, contextual motivation, to empirically evaluate the motivation of

students to physical fitness workouts. This theory puts the foundation for the contextual nature of motivation in instructional service. From a psychological perspective, contextual motivation refers to one's motives for participating in a more varied set of related activities, such as physical fitness and sports, within a period of time (Ryan, & Deci, 2002). Consistent with this conceptual definition of motivation, students' motivation is defined as a student's motives to successfully perform physical fitness course workouts within the context of the sports field, gymnasium, classrooms and individual variations (Cook, & Artino Jr, 2016; Stipek, 2012; Tschannen-Moran & Hoy, 2001).

Self-determination theory of motivation provides some dimensions along with the sports context. For students, motivation increases persistence in working with challenging physical fitness workouts and has been shown to influence student's performance, interest and commitment, which commonly contribute for the quality fitness service, on higher educational context (Holton, & Swanson, 2020; Catherine & Ennis, 2017; Knowles, Thompson, & Clayton, 2004). Evaluating the motivation of students to physical fitness workouts is critically important to take measures of their overall performance and health.

Considering the variety of reasons accounting for motivation, as well as its dimensionality, the author takes SDT as a base. The theory served as sources of influence to inform the selection of crucial variables for the study. Fig. 1 presents the components of the conceptual model.

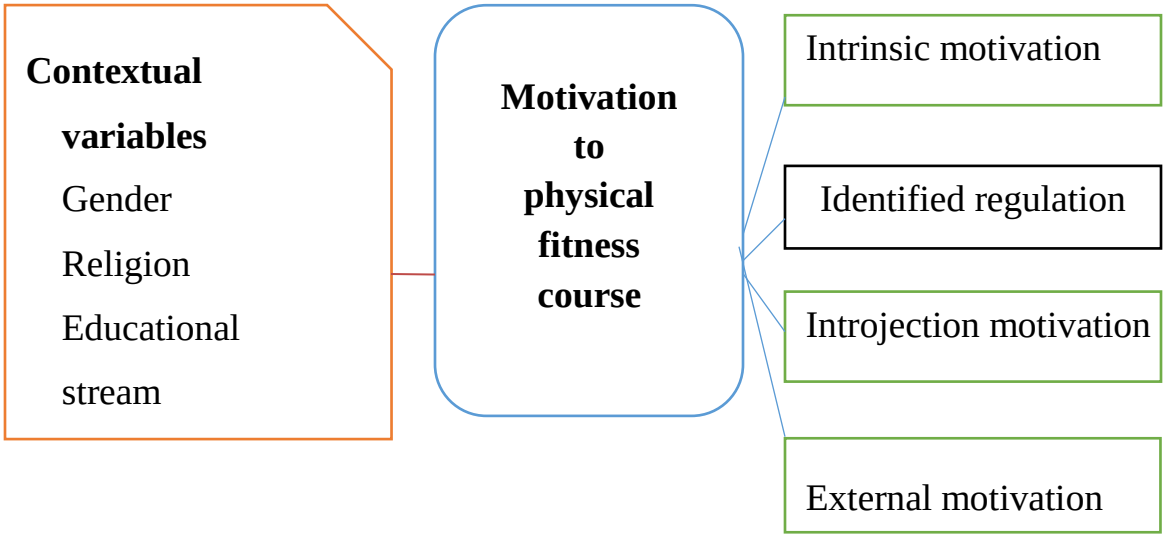

***Figure 1:*** *Conceptual model of the study*

As shown in Figure 1, each element of the model addresses specific aspects of the study. The first component of the model the contextual factors include gender, religion, educational stream, and residence area of students before joining university. The second component of the model the motivational variable includes four domains: intrinsic motivation, identified regulation, introjection motivation, and external motivation, dealing with the given motivation variables.

## Methods

Design

The study employs a descriptive survey design as it was found suitable to achieve its purposes. It allows the scholar to evaluate and compare many different variables at the same time with little or no additional cost (Rakesh and Priya , 2019) In this study, the author evaluates the motivation of fresh students for physical fitness course and compared their motivation for physical fitness course across different contextual variables.

**Sampling**

The participants of this study were freshman students who were registered in the 2021/2022 academic year at Bahir Dar University. Before sampling, the researcher identified the total number of students (1860) as well as number of sections (32) in the university (using a sections list collected from the registrar's office). Researcher, then divided the whole sections in to two groups, natural and social science, based on their stream. Then, 15 sections were randomly selected from each group and a total of 323 students were selected as samples of the study by using systematic random sampling techniques. Table 1 summarizes the demographic characteristics of the research participants.

Table1. *Demographic Characteristics of Participants Students (n=323)*

| Contextual variables | Characteristics | Frequency | Percentage |
|---|---|---|---|
| Age | 18 | 13 | 4 |
| | 19 | 79 | 24.5 |
| | 20 | 216 | 66.9 |
| | Above 20 | 15 | 4.6 |
| Gender | Male | 170 | 52.6 |

| | | | | |
|---|---|---|---|---|
| | Female | 153 | 47.4 | |
| Religion | Orthodox | 165 | 51.1 | |
| | Islam | 78 | 24.1 | |
| | Protestant | 60 | 18.6 | |
| | Catholic | 17 | 5.3 | As |
| | Others | 3 | .9 | show |
| Stream | Natural Science | 174 | 53.9 | n in |
| | Social Science | 149 | 46.1 | Table |
| Residence area | Urban | 142 | 44 | 1, |
| | Semi Urban | 110 | 34 | most |
| | Rural | 71 | 22 | of the |

participants were male students (52.6 %, n = 170), and the rest were female participants (47.4 %, n = 153). Regarding religion, 51.1% (n = 165) and (24.1%, n= 78) of the students were Orthodox Christians and Muslims respectively. In terms of educational stream, (53% (n = 174) of the participants involved in the study were from natural science while the remaining ones (46.1 %, n = 149) were from the social sciences. In relation to their residence area before joining the university, most of them (44%, n=142) were from the big cities (capital cities of regional states, zones, and city administrations). The remaining (34 %, n=110) and (22 %, n = 71) were from semi Urban (woreda cities) and rural areas respectively.

**Data Collection**

In this study, students' motivation for physical fitness course was measured by adapted the standard tool called Exercise Self-regulation questionnaires (SRQ-E) developed by Ryan and Connell (1989). The instrument includes individual student scores on composite measures in 4 dimensions: intrinsic motivation (3 items), identified regulation (6 items), introjection motivation (3), and external regulation (1item). The motivation question items begin with the statement "Please circle the number that best describes the season why you are engaged in physical fitness workout during physical fitness course?" Student respondents were given scales ranging from 1 (not at all) to 5 (exactly). An example of the intrinsic motivation

item reads as follows – 'because I feel good when doing this workout'.

Before data collection, a verbal consent was obtained from the students in their respective sections. After this, the questionnaire survey was distributed to the 323 participant students. All of the distributed questionnaires were collected with responses properly filled in. with the purpose of understanding the reliability of the survey instrument, a pilot study was conducted on 106 first-year students who were not part of the main study. Since language expert was involved, there was no major correction in words or phrase of the sentences. However, the expected time and the time required to fill the questionnaire was different. Hence, it helped to know the time required in the actual data collection in advances. Accordingly, the reliability correlation coefficient of the instrument was found to be .89 implying that the motivation measure was sufficiently reliable.

**Data Analysis**

In this study, descriptive statistics analysis methods were employed. Specifically, the study uses frequency and percentage to analyze the demographic characteristics of the students and mean to analyze the motivation of the students for physical fitness course. Besides, independent sample T-test was used to examine the motivation of students for physical fitness course depending on contextual variables. In doing so, SPSS version 25 software was used.

**Results**

In order to understand freshman students' motivation for physical fitness course in Bahir Dar University, descriptive statistics was used. Results obtained in this manner are presented in Table 2.

**Table2.** *Summary Descriptive Result: Students Motivation Variables (n=323)*

| Motivational Variables | Minimum | Maximum | Mean (SD) |
|---|---|---|---|
| Intrinsic Motivation | 1 | 5 | 2.97 (±1.01) |
| Identified Regulation | 1 | 5 | 3.58 (±1.06) |
| Introjection Motivation | 1 | 5 | 2.39 (±1.38) |
| External Motivation | 1 | 5 | 2.47 (±1.47) |
| | Total Average | | 2.85 (±1.73) |

*Note. SD= Standard Deviation*

Table 2 shows the overall mean of students' motivation level for physical fitness course. As it can be seen from the table, the overall mean (2.85), with a standard deviation of 1.73, was below the average mean (mean=2.85±1.73). Most of the motivational variables, intrinsic, introjection and external motivation, were also below the average mean. Only the mean of identified regulation score (3.58), with a standard deviation of ±1.06, was found a bit higher than the average mean implying that most of the sample students had clearly identified the multidimensional benefits of physical exercise course.

Following this, the mean scores across the contextual variables, i.e., gender, religion, education streams, and students region of residence, were compared. The purpose was to test measure whether or not there was a significant statistical difference among each component. The correlation statistics results obtained in this regard are presented in Table 3.

As can be seen in Table 3, the mean scores of most motivational variables did not show statistically significant differences as a function of gender ($p<.05$). This means that there were no significant motivational differences between male and female fresh students for learning physical fitness courses. It implies that males were intrinsically motivated for physical fitness course as their female counterparts.

In relation to religion, there was no statistically significant difference in scores of motivations for physical fitness course among Orthodox Christian and Muslim students ($p<.05$). There was, however, a statistically significant difference in introjection motivation ($p <. 05$) implying that Orthodox Christians were more motivated for physical fitness course than Muslims in relation to only introjection motivation.

In terms of educational streams, there was a statistically significant difference in identified regulation and external motivation ($p<.05$). Put differently, students with natural and social science backgrounds were found to have different motivation levels for physical fitness course only in two motivational variables. Accordingly, the motivation of social science background students for physical fitness course was found better than those students from the natural science background. There were no statistically significant differences in the remaining two motivational variables.

Concerning family residence of the students, there was no statistically significant difference in most motivational variables among students coming from families residing in urban and semi-urban. However, students who came from families living in big cities were found to be more intrinsically motivated to physical fitness course than those who came from woreda towns ($p<.05$). This indicates that students from big cities were more motivated to physical fitness course than those who came from woreda towns. This might attribute to their internal feelings

.Table 3 Summary of Perceived Motivation Scores between Sample Student Participants across Gender, Religion, Educational Stream, and Family Location (n=323)

| Variable | Male (n= 231) | Female (n=170) | 95% CI | | *DF* | t value | F | P |
|---|---|---|---|---|---|---|---|---|
| | M (SD) | M (SD) | LL | UL | | | | |
| IM | 3.02 (.93) | 2.91(1.09) | -.11 | .33 | 321 | .95 | 3.75 | .05 |
| IR | 3.52 (1.09) | 3.64 (1.02) | -.34 | .12 | 321 | -.93 | 1.67 | .19 |
| INM | 2.55 (1.34) | 2.20 (1.42) | .04 | .65 | 321 | 2.27 | 1.11 | .29 |
| EM | 2.56 (1.47) | 2.37 (1.46) | -.13 | .50 | 321 | 1.13 | 1.11 | .29 |
| | Orthodox (n= 165) | Muslim (n=78) | 95%CI | | *DF* | t value | F | P. |
| | M (SD) | (SD) | LL | UL | | | | |
| IM | 3.033 (1.01) | 2.75 (1.08) | .14 | -.09 | 241 | 1.96 | 1.50 | .22 |
| IR | 3.60 (1.10) | 3.46 (.93) | -.14 | .42 | 241 | .95 | 3.38 | .06 |
| INM | 2.50 (1.39) | 2.06 (1.24) | .08 | .80 | 241 | 2.40 | 4.20 | .04 * |
| EM | 2.38 (1.46) | 2.32 (1.38) | -.32 | .45 | 241 | .34 | 2.20 | .13 |
| | Natural Science (n= 174) | Social Science (n=149) | 95% CI | | *DF* | t value | F | P. |
| | M (SD) | M (SD) | LL | UL | | | | |
| IM | 2.96 (1.03) | 2.97 (1.00) | -.23 | .20 | 321 | -.12 | .33 | .56 |
| IR | 3.52 (1.14) | 3.65 (.96) | -.36 | .10 | 321 | -1.07 | 5.42 | .02 * |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| INM | 2.37 (1.35) | 2.41 (1.43) | -.34 | .26 | 321 | -.27 | .99 | .32 |
| EM | 2.45 (1.55) | 2.49 (1.36) | -.36 | .28 | 321 | -.22 | 8.64 | .02 * |

| | Urban (n= 142) | Semi urban (n=71) | 95% CI | | *DF* | t value | F | P. |
|---|---|---|---|---|---|---|---|---|
| | M (SD) | M (SD) | LL | UL | | | | |
| IM | 3.05 (.93) | 2.91(1.11) | -.11 | .39 | 250 | 1.06 | 4.65 | .03 * |
| IR | 3.52 (1.06) | 3.64 (1.10) | -.39 | .14 | 250 | -.90 | .12 | .72 |
| INM | 2.17 (1.30) | 2.54 (1.44) | .03 | -.71 | 250 | -2.12 | 2.34 | .12 |
| EM | 2.52 (1.50) | 2.44 (1.46) | .66 | -.28 | 250 | .437 | .52 | .47 |

*Note*. IM = Intrinsic motivation, IR = Identified regulation, INM = Introjection motivation, EM = External Motivation, M= Mean, LL = lower limit, UL = Upper limit, *SD= Standard Deviation, Significant* levels: *p<.05, **p<.01

## Discussion

This study examined the motivation of fresh students for physical fitness course and its relation to contextual variables. Unfortunately, as indicated in the results section, the overall mean motivation level of fresh students to the exercise under discussion was below the expected mean (2.85). Consequently, the present study has shown that there was no statistically significant difference in most motivational variables across gender, religion and residence area difference among the students. However, there was statistically significant difference in some motivational variables between social and natural sciences students.

Motivation is important factor to be effectively participating in physical fitness course. Unfortunately, this study confirmed that the overall mean motivation level of fresh students for physical fitness course was under expected mean. The finding of this study is similar to previous studies reported by Cruz, (1996), Daley & O'Gara, (1998), Cid, (2002), Landry and Solmon (2004), Kilpatric, Hebert & Bartholomew, 2005Jorge, Helio and Roland (2013), Jones, Karageorghis, Lane, and Bishop, (2017), and Iker, et al., (2021). Contrary, it was inconsistent with the findings reported

by Wei-Yang and Chih-Chao (2019), Jorge, Helio and Roland (2013). The variation of results among studies might be related to biological difference of students. Besides, it might be also related to psychological, intellectual and emotional difference among the workouts participants (Stewart, Neville, Adrian, James, and Wendy, 2002, Jennifer et al., 2008). Furthermore, behavior and skills of students, the availability of well-furnished exercise facility, and attitude of their society to physical exercise are also among the possible reason associated with motivational difference among course participants (Stewart, et al., 2002, Jennifer et al., 2008, Seguin et al. (2010).This implies that motivation levels of students for physical fitness related course are more influenced by external factors than factors related to the students themselves.

In this study, the mean scores for most motivational variables did not statistically and significantly differ across gender. This is not similar to previous research finding. For instance, according to Kilpatric, Hebert and Bartholomew, 2005; Vlachopoulos, 2012; Iker, et al., 2021, males were statistically and significantly more motivated to engage in physical exercise than females. Inversely, other researchers found that females got higher scores in intrinsic motivations than males (Telama & Yang, 2000; Fortier, Vallerand, Brière, & Provencher, 2005). This disparity of results among studies could be linked to age, culture, sexual maturity, and body composition difference (Wickel, Eisenmann & Welk, 2009; Hills, Andersen, and Byrne, 2011; Edward son, Gorely, Pearson, and Atkin, 2012). This indicates that as body composition, fitness, and sexual maturity as well as environment situations changes, the motivation of particular male or female students for physical fitness course could be changed.

In terms of religion, the present study indicates that there was no statistically significant difference between Orthodox Christian and Muslim students. Similar findings were also reported by some researchers. For instance, Reeves, Adams, Dubbert, Hickson, and Wyatt (2012) found a non-significant difference in motivation to participate in physical activity among African American students having different religious backgrounds. Another study conducted by Silfee, Haughton, Lemon, Lora, and Rosal (2019) also underlined a positive association between religious background of students and their

inclination to physical activity. Moreover, other scholar also examined the positive contribution of both religious practice and physical fitness workouts in the improvement of health and psychological make-up of individuals (Anderson & Pullen, 2013; Roh, et al., 2019). The Similarity of results might be related to the influence of both religious practice and fitness workouts for better health behaviors (Maureen, 2012). This implies that religion practice of various religions and physical fitness course have positive contribution to develop fitness, health and wellness.

In this study, no statistically significant difference was found between students who came from urban and semi-urban residences in motivation for physical fitness course. However in this study, students from urban areas were more intrinsically motivated for physical fitness workout than those who came from semi-urban areas of the county, Ethiopia. A similar research finding was reported by Jorge, María, Santiago, Eugenio, and José (2022). On the contrary, Van (2011) explored a higher rate of physical exercise and sports participation in semi-rural areas than in urban areas in the Netherlands. This difference, as suggested by Keenan (2002), might be related to the physical and socio-ecological differences of the study areas.

As far as educational stream is concerned, the present study has shown that there was a statistically significant difference between natural and social science background students. The difference, however, is only in two motivational variables: identified regulation and external motivation. As indicated in the results section, no differences were found in the remaining two motivational variables. There have not been studies conducted on this context so far. This indicates that the influences of academic discipline or inclination on motivation of students to physical fitness course were not clearly known. Hence, further investigation is needed across different subjects.

**Conclusions and Recommendations**

Motivation is the major psychological factor for active participation and success of student's physical fitness course. In line with this, understand the motivation level of students for physical fitness workouts is primarily important to design well specific interventions to help them to meet their personal goals, to influence the

performance of their instructor in a positive way and to keep the quality of instruction as a whole. Hence, the aim of this study was to evaluate the motivation of fresh students for physical fitness course and its relation with contextual factors at Bahir Dar University.

Based on the results of the present study, the following conclusions are drawn. Fresh students' motivation for physical fitness course measured on a 5-point Likert scale was below the average mean. Moreover, there was no significant statistical difference in most contextual variables of the students. Under average motivation for learning the course is mainly related to introjection and external motivation. Consequently, there was no statistically significant difference in most motivational variables across gender, religion and residence area difference among the students.

The results of the present study have far-reaching implications. The results, for instance, suggest the need to improve students' motivation for physical fitness course in higher education. For this purpose, it is highly advisable to maximize the quality of physical fitness instruction. This, in turn, requires the improvement of instructor's pedagogical competence, better supply of physical fitness facilities, and the implementation of workout programs that aimed at strengthening the quality of variables related to motivations.

This study also implies the need to conduct further studies on the issue at hand. Though the present study has brought important lessons vis-à-vis the motivation of freshman students for physical fitness course, its generalizability is limited at it was conducted only in one university with a sample size of 323 students. Hence, in order to increase the generalizability of the present findings and, perhaps, to broaden our understanding of the issue at hand, it is necessary to conduct similar studies targeting more universities and better sample size. Future research should also examine the relationship between students' motivation to physical fitness exercise and educational quality. Besides, it should give due attention for the investigation of the relationship between student motivation for physical fitness course and instructors performance.

**Study Limitation**

One of the limitations of this study is that the analysis is mainly depending on results

from an independent sample T-test. The other limitation of this study was the inclusion of students in a single university. Hence, the motivation, and contextual characteristics of the students may not capture those found in another university of the country. Another limitation of the study is the focus on broad conceptualizations of physical fitness course, considering the physical fitness workouts. This fails to capture theoretical part of physical fitness course. Future research may wish to examine other indices of physical fitness course in the higher education setting. The other limitation of the study was that due to some reasons, other contextual variables of the students such as age, disability, ethnicity, region, language, and others are not considered in the comparison. Thus, further study is needed regarding the absence or presence of significant difference across different contextual variables

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