

# PRINCE SULTAN UNIVERSITY PREFERENCE IN PHYSICAL ACTIVITY: BASIS IN PROGRAMMING HEALTH RELATED PHYSICAL ACTIVITY PROGRAM FOR PSU COMMUNITY

<sup>1</sup>Alexei Borodai <sup>2</sup>Marshal C. Defensor <sup>3</sup>Hussain Yasin

<sup>1</sup>Physical Education, Health & Recreation Department, Prince Sultan University – Riyadh, KSA, Ukraine

<sup>2</sup>Physical Education, Health & Recreation Department, Prince Sultan University – Riyadh, KSA, Philippines

<sup>3</sup>Physical Education, Health & Recreation Department, Prince Sultan University – Riyadh, KSA, Jordan

## ABSTRACT

*The study seeks to find out the preference of Prince Sultan University community regarding their physical activity. Three hundred and ninety respondents (N=390) coming from students enrolled during the 1<sup>st</sup> semester of Academic Year 2014-2015, faculty and staff of PSU were asked to answer the International Physical Activity Questionnaire (IPAQ) which enables to know the level of physical activity they are engaging with, the types of physical activities they would like to engage with, the prepared time or workout schedule of their physical activity in order to design the suited physical activity related to the health and fitness of PSU community. Light to moderate activities like running, swimming, walking and other outdoor activities are the most prepared activities of PSU community which majority prepared to workout in the evening between 4:00 PM and 8:00 PM. The world Health Organization recommended for children aged 5-17 years old a minimum requirements of 60 minutes per day of three times per week of aerobics activities incorporated with vigorous intensity. ([www.WHO.int/dietphysicalactivity](http://www.WHO.int/dietphysicalactivity)).*

*KeyWords: Physical Activity, PSU Community, Types and Levels of Physical Activity.*

## INTRODUCTION:

Physical activity has a rich history recorded which is related to exercise that promotes health and fitness. In fact Ancient China's contribution to the development of physical activity is their mastery in medical practices as their means of their physical fitness known as "kung-fu", while the Greeks and Romans practices military training as their forms of exercises in which later became part of their regular physical activity to train people in preparation for war. The Germans, known for their contribution to gymnastics, introduced physical activity to school curriculum, which until now integrated as part of the academic curriculum.

## Physical Activity

Physical Activity is a bodily movement that is produced by the contraction of skeletal muscle and that substantial increases in energy expenditures. (Hardik D. Parab, IPAQ-Validity and Reliability in Indian Population). Prince Sultan University is an academic community composed of student, faculty and staff who are regularly engaging in different physical activities at home, classroom, work and during leisure time. But still many in the community observe a lack of interest in engaging on different physical activity. Is the physical activity preference of PSU community suited to the one offered by the PEHRD? How does the community understand their level of physical activity? Awareness of the importance and benefits of physical activity are key factors to motivate the community to engage in the variety of physical activity programs. Knowing the life-long effect of physical activity on the individual will encourage more participants to commit themselves. However, the availability to engage in physical activity sometimes affects their interest to continue, particularly if their studies and work will be affected.

In the article published regarding physical activity, it emphasized that 81% of adolescent aged 11-17 years old were insufficient physical active in 2010. Adolescent girls were less active than adolescent boys, with 84% against 78% who are not meeting the minimum requirements suggested by WHO. (Villena, 2011). In fact, Canada has along commitment to study in physical activity level as they started in 1981 until 2005, which showed their importance to physical activity engagement of people. Despite their commitment and effort to reduce physical inactivity, still the results from the survey revealed that majority of adult Canadian are insufficiently active. (Hardman, et.al. 2009). Another stud regarding physical activity of university employees with or without health promotion program indicates that participation of physical activity for staff helped increase positive health behaviors, increase in moral and productivity and decrease employer health care cost. (Leiningerm at.al, 2013). For most developing countries like Kingdom of Saudi Arabia, physical activity should not be a problem because of their accessibility and capability to meet the global action plan set by WHO. But the preference of the people needs to be addressed with regards to their awareness and interest to participate in different physical activities offered.

## PSU Community

Prince Sultan University is one of the leading private university in the Kingdom which has an estimated population of more than 1,000 students, faculty and staff coming from different nationality, color and races. The medium of instruction used in the university is English while the mother tongue language is Arabic for most of member of the community. Majority of the faculties are expatriates in view of the commitment of the university to establish a diverse delivery of quality education.

Physical activity at Prince Sultan University is embedded in the program of Physical Education, Health and Recreation Department since its establishment in 1999. PEHRD runs the programs for Preparatory Year Program and University Year Program students. P.E course for PYP students is a pre-requisite while UYP students can take P.E courses as elective equivalent for one credit hour. Every semester, PEHRD courses offers to more than 500 students in PYP and 200 students in UYP level.

The faculties are around 150 professionals mostly with masteral and doctoral degree of their respective specialization. Most of the faculties are hired from different countries like United Kingdom, United States, South Africa, Scotland, Ireland, Ukraine, South Korea, Japan, Malaysia, Jordan, Egypt, India, Pakistan, Philippines, Syria, Lebanon, Puerto Rico, Sudan and many more. While for staff, is dominated mostly by Saudi with a mixture from other nationalities from Philippines, Jordan, Palestine, Sudan, Egypt, Syria ad others. Such diversity in the roster of faculty and staff added makes more interesting to know the level and type of physical activity the community is engaging with.

## Existing Physical Activity of PSU Community

PSU community is no stranger to different physical activity program. PEHRD have organized different physical activity programs aims to promote the benefits and importance of physical activity to the community. Since 2005, PEHRD organized different physical activity awareness campaign like seminar-workshop in fitness and health, fun-run, lecture demonstration in aerobic

and anaerobic activities, nutrition, obesity and other program related to physical activity. Likewise, the academic and extra curricular program is also handle by PEHRD. Different organized physical activity programs like lunchtime sports activities and intramural sport that includes playing soccer, basketball, volleyball, table tennis, badminton and swimming. Evening recreation program also offered for those who prepared to engage after school or work, the activities involved are aerobic activities and weight training. While varsity sports program are offered for those qualified student-athlete who qualified from the training for their respective coaches. All programs are offer to student, faculty and staff except the varsity program, which is exclusively for student only.

### PURPOSE OF THE STUDY:

The purpose of the study was to know the preference of PSU community in physical activity in terms of their level and type of physical activity and the prepared workout time. Using the International Physical Activity Questionnaire (IPAQ), respondents were asked to answer the questionnaire to determine what type of physical activities they are engaging, their level of physical activities and their prepared workout time. Although research demonstrated relevance on the benefits of physical activities to PSU community, little research has been conducted with PSU community and evaluated the level, type and prepared time for their physical activities. In addition, there are limited study conducted in physical activity involving the academic community in major university in Riyadh, Kingdom of Saudi Arabia.

Physical activities whether it is formal or informal have its benefits to individual and community. PSU as one of the active academic community in the area has an important role to partake to make change to the life of the community. Therefore, PSU should take an active role in promoting physical activities in improving the academic standing of students as well as performance of faculty and staff at work.

### METHODS:

#### Participants

Three hundred ninety students, faculty and staff from Prince Sultan University who are actively enrolled during the 1<sup>st</sup> semester of Academic Year 2014-2015, full-time faculty and regular staff are the participants of the study. Students identified in the study are those who are currently enrolled in Physical Education courses in Preparatory Year and University Year Program.

Participants were asked to answer the International Physical Activity Questionnaire (IPAQ) long version using online survey. With the use of Google docs, questionnaire will be sent to the respondent university e-mail account or their personal account. The researchers also tapped the help of fellow P.E faculty to explain to the students the purpose of the study and encourage them to participate to the survey to come up with an appropriate physical activity program for the community.

IPAQ is divide into four parts: Part 1: Job-Related Physical Activity, Part 2: Transportation Physical Activity, Part 3: Housework, House Maintenance and Caring for Family and Part 4: Recreation, Sport, Leisure-Time Physical Activity. Part of the limitation of the study is to categorized the respondents according to their status, for that reason student can proceed to Part 2 of the survey after answering the personal information and ignore Part 1, except for student who categorize themselves as working student.

After gathering the answers, results obtained will be interpreted to know its validity and reliability. Answers will be treat with strict confidentiality to verify its significance. Then, the final step is to conceptualize the result of the survey to answer the hypothesis raised in the statement of the problem.

## RESULT:

A total of 390 students, faculty and staff of Prince Sultan University responded from the survey. Majority of the respondents are students, low response rate from faculty and staff in which the generalizability of the results maybe limited. Of the 390 respondents, 386 had usable data, with 4 (1.0%) missing. The total number of respondents for student was 352 (91.19%), for faculty 29 (7.51%) and staff 7 (1.81%).

Majority of the respondents are in the age range of 18-23 years accounted for 63.38%. The youngest respondent is at 17 years of age and the oldest respondent is at 73 years old. The results also indicated a mean average of 22.45% mean greater than the median of 19.67%, clearly showed positive skewed in the age distribution.

## DISCUSSION:

Figure 1 shows the results showed that majority prepared to engaged to running, swimming, walking and other outdoor activities with 42.6% validity scores, followed by running in machines with 27.7% validity scores, weight training and other anaerobic activities with 23.6% validity scores. Obviously, gardening and other household activities got the lowest scores of 5.4%.

Figure 1

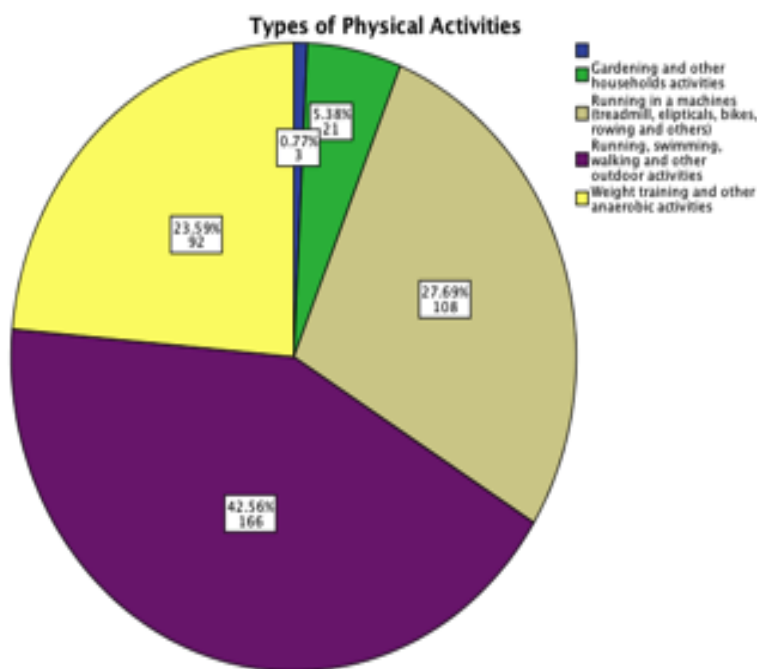
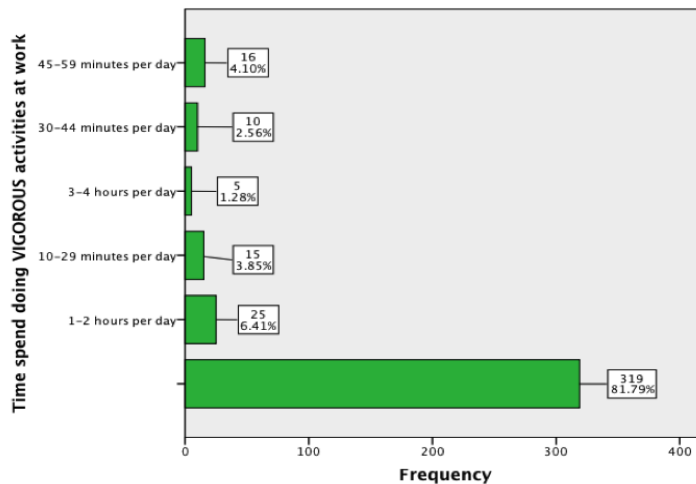




Figure 2



Obviously the data in figure 2 clearly indicate the relevance of the survey question to the respondents. A frequency score of 25 for 6.41% validity and 88.2 cumulative scores for those who spend 1-2 hours of vigorous activities at work. While respondents who prepare to spend 45-59 minutes per day got a frequency scores of 16 and with 16% validity and 100% cumulative scores. It follows by respondents who prepare to spend 10-29 minutes per day doing vigorous activities with frequency scores of 15 and validity of 3.8% and cumulative scores of 92.1%. While for 30-44 minutes per day, it got a frequency score of 10 for 2.6% validity and cumulative scores of 95.9. And for 3-4 hours per day got the frequency score of 5 and validity of 1.3% for cumulative scores of 93.3%.

In a study conducted regarding physical activity of university employees with or without a worksite health promotion program indicates that participation to physical activity of staff help increase positive health behaviors, increase in moral and productivity and decrease employer health care cost. (Leininger, et. al., 2013). It is clearly show advantage and benefits any establishment would get if they will encourage the employees or staff to engage more to physical activity but ironically it the other way around happened based from the result of the scores.

The turn out of result indicates that most of the respondents consider the question for those already working. While majority of the respondents are students, but still a few who are working students answer the question. Respondents to the survey question prepare to do vigorous activities for 1-2 hours, which they find it appropriate, but not more than 2 hours.

Figure 3

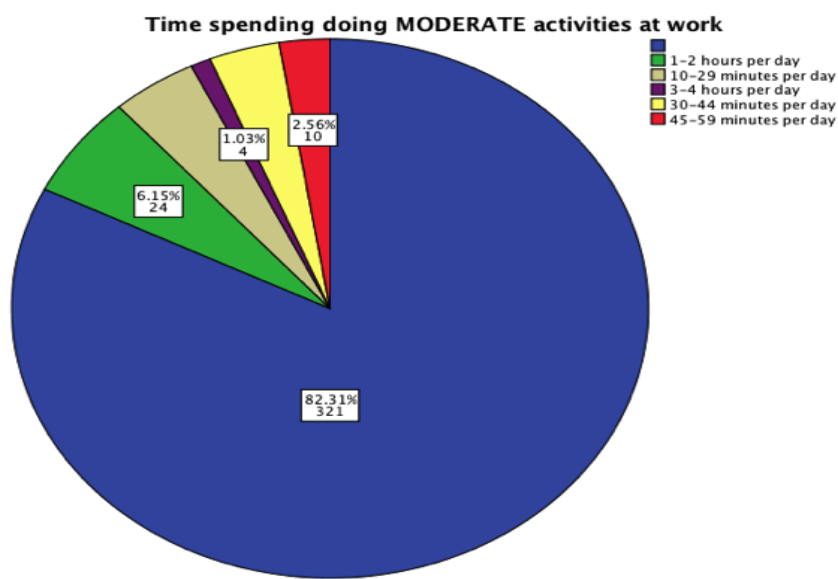


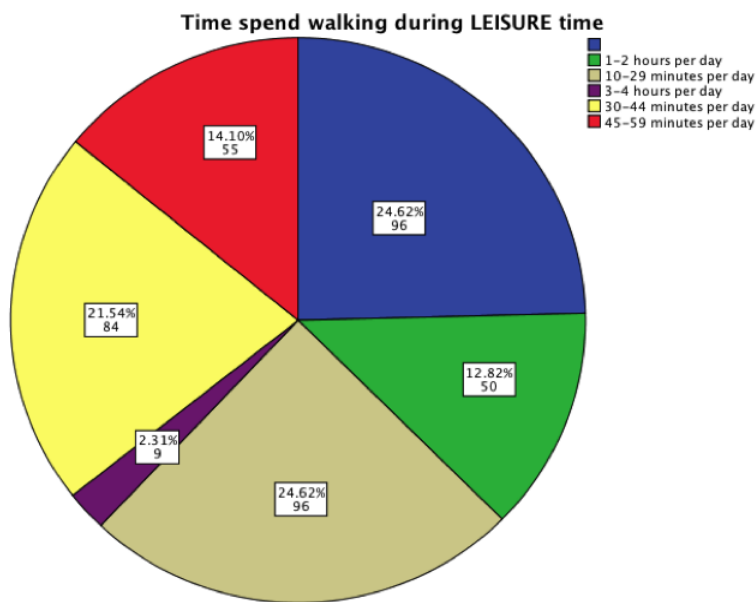
Figure 3 indicates that most respondent prepares 1-2 hours per day of spending moderate activities at work for 6.2% validity and 88.5% cumulative scores. The scores for 10-29 minutes per day obtained frequency scores of 17 with validity of 4.4% for 92.8% cumulative score, followed by 30-44 minutes per day spending moderate activities for a frequency score of 14 and a validity of 3.6% for 97.4% cumulative score. While those who answers 45-59 minutes per day have a frequency score of 10 and a validity of 2.6% for 100% cumulative scores. Last is the 3-4 hours per day of doing moderate activities at home with a frequency score of 4 for a validity of 1.0% and a cumulative score of 93.8%. Unlike in spending in vigorous activities at home in



which they prepare to do it within 30 minutes or less, but in moderate activities at work, they find 1-2 hours per day will be appropriate and enough to get involve and be more mobile.

Figure 4 indicate the prepared workout time for the respondents, 53.1% for 207 respondents prepared to do workouts in the evening, 31% for 121 respondents during lunchtime and 15.9% for 62 respondents in the morning. The scores clearly indicated that most of the respondents prepared to do workout after class or office hours in which they are free from work and classes. It also gave them more flexibility to engage longer to different physical activity.

Figure 4

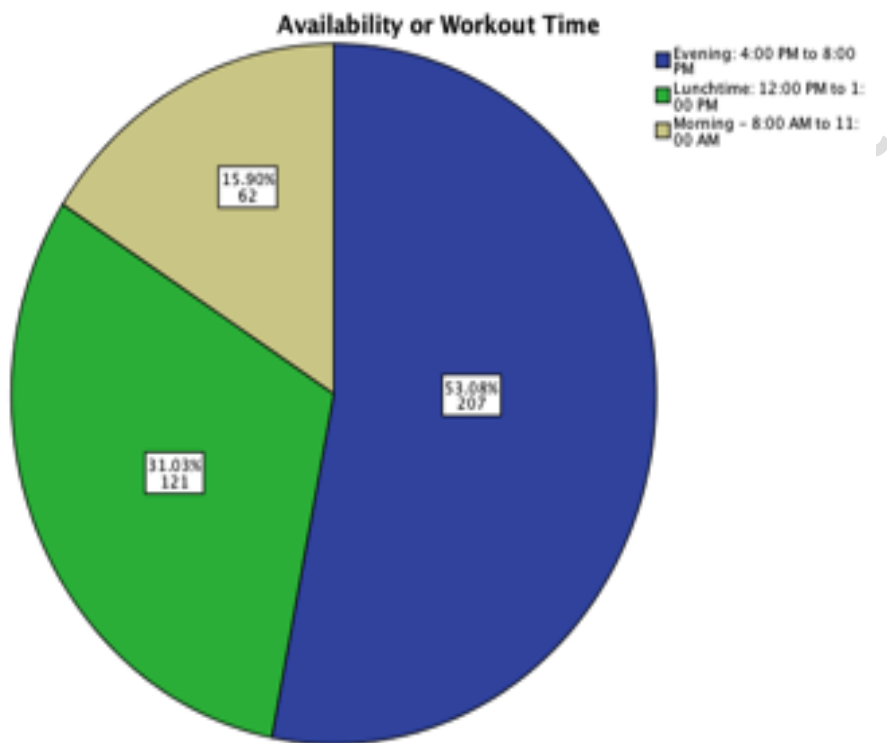


Leisure time refers to as the time free from obligations (paid or unpaid), and tasks required for existing (sleeping, eating) (www.humakinetics.com). While leisure activity is an activity that people engage during free time, which varies from relaxation, competition or growth.

Figure 5 shows the how close is the scores obtained in each of the choices. 96 of the respondents prepare to walk from 10-29 minutes per day for 24.6% validity and a cumulative score of 62.1%. Came close is the 30-44 minutes per day of walking for 21.5% validity and 85.9

cumulative scores. While 55 frequency scores obtained for those who prepares to walk for 45-59 minutes per day for 14.1% validity. 50 respondents prepare to do walking for 1-2 hours per day for 12.8% validity and 37.4 cumulative score. While a score of 9 tallied for 3-4 hours per day of walking for 2.3% validity and 64.4 cumulative score. The score for those who did not answer the questions is the same as for those who responded in 10-29 minutes per day, it tallies a score of 24. % with validity and a cumulative score of 24.6%.

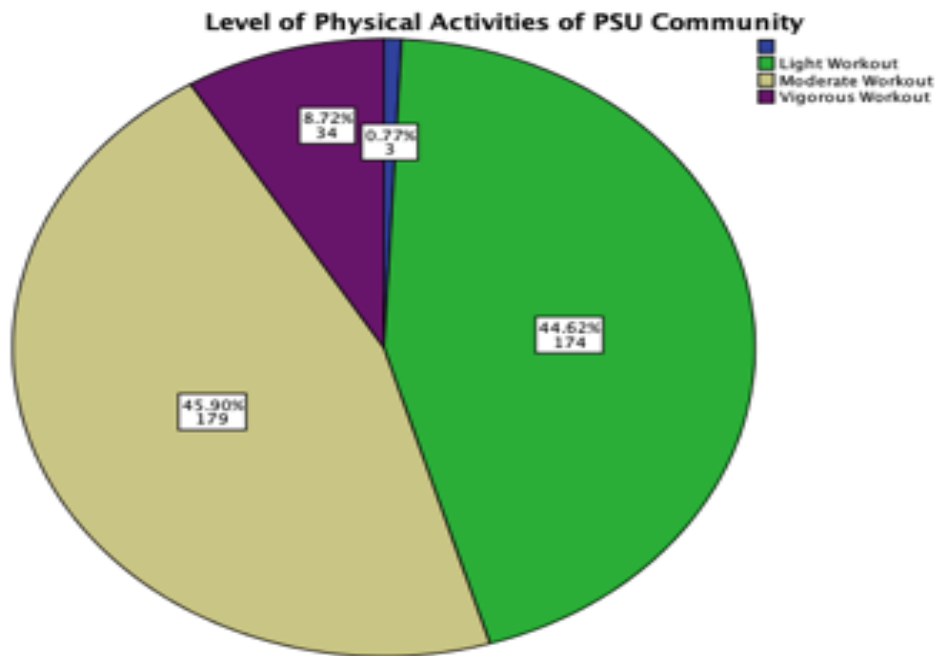
Figure 5



Again, figure 6 illustrate how do PSU community responded to the question about their level of physical activity they are engaging with. Majority of the respondents prepared to engage to light to moderate physical activity garnering an average scores of 44.6% and 45.9% validity scores respectively. While those who would like to engage to vigorous activity scores 8.7%. Although the scores signified a low percentage in the minimum requirements set by WHO, but it is still good to know that PSU community have a lot of room for improvement to achieve the

minimum requirements. Maybe the result of the study will help the community to focus on more on the prepared physical activity while gradually increasing the intensity.

Figure 6



The result have gathered shows how active PSU community with regards to physical activity but the score also reminds the researcher how important the availability of the participants. Majority who answered the survey prepared to do workout in the evening maybe because it is the best time to engage with any physical activity after their busy schedule from class and work. Another point to consider is that they can go back home and prepare themselves for the physical activity wherein they have eaten their lunch or early dinner back home. On the other side, those who prepares to workout in the morning find it relaxing for them to do workout in the morning than in the evening. While those who work out during lunchtime said that it is their best time because that the only free time they have for the day.

Lifestyle and cultural practices have great influence in the practice of physical activity at home for most member of PSU community. Home physical activity like engaging to household

chores is not normally observed to the majority of the respondents as they grew up having someone to assist them like their nanny's to different household chores. The usual responsibility given to most of the respondents is caring for their family. It is been observed that men as the head of the family should take care of their siblings. Driving their female siblings like their mother and sisters are their responsibility if no driver is available to attend to them.

Physical activity at work or workplace is insufficiently active. The time spends of most respondents in vigorous and moderate activities at work are not enough to consider that they are physically active. Considering the type of work of the respondents, most of them are either sitting in their offices, facing the computer or doing office staff that force them lessen physical activity. Administration and management should take a look on the hazardous effect of too much sitting and facing the computer for long. Encouraging the employees to walk, visit other offices to share views about their work, encouraging employees to use stairs instead of elevators and escalators and lessen the use of mobile phones instead practice personal conversation would be a very start to make the faculty and staff aware of the important effect of engaging to physical activity at work.

### LIMITATIONS:

The study is focused on the preference of PSU community in physical activities, which are student, faculty and staff in physical activity. It is limited only to PSU community who are currently enrolled in 1st semester of Academic Year 2014-2015 and current PSU faculty and staff employed for Academic Year 2014-2015.

International Physical Activity Questionnaire long version of 27 questions will be used to determine the physical activity of the respondents at work, travel, home and during leisure time. Only selected questions will be analyze which the researchers find it important in coming up with recommendation on how to program the health related fitness program of the respondents. It is also included in the questions are some vital information related to basic anthropometric measurement like height and weight, age and status. It also seeks to find out the level of physical

activity whether it is low workout activity, moderate workout activity and vigorous workout activity as well as the prepared availability or time to practice workout.

### IMPLICATIONS OF THE STUDY:

Research study simply implicates that there should be a continuous and monitored program in physical activity by Physical Education, Health and Recreation Department to check the development of PSU community to reach the minimum requirements set by World Health Organization regarding the time and percentage of intensity that an individual should spend in achieving the appropriate physical activity that is beneficial for individuals health. The overall findings in the study indicates that majority in community needs more time to spend physical activities and should geared towards achieving the appropriate intensity of moderate to vigorous intensity.

Research should continue in the promotion not only of physical activity but also on the impact of it to health and fitness. Further studies should be conducted in the positive health benefits of physical activity to the academic excellence of student as well as quality performance of faculty and staff at work. Another concern is to come-up with unified activity logs so that researchers can determine the amount and intensity of exercise. In the future, a proposed activity logs exclusively for PSU community which is available as downloadable application for their computer, tablets and mobile phones.

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