

Perceived Constraints to Physical Activity Among Postgraduate Students of Pondicherry University

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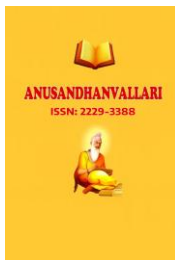
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Abstract: The purpose of this study was to investigate physical activity (PA) constraints as perceived by postgraduate students of Pondicherry University. Five indicators were included which were lack of self-skill, lack of time, academic anxiety, academic workload, and religious activities. The study adopted a survey design with 278 respondents selected from fifteen schools using stratified and clustered sampling technique. A self-developed questionnaire validated by experts with a reliability co-efficient of .78 was used as the main instrument for data collection. The data generated were analyzed using percentages and mean to answer the research questions, while chisquare statistical tool was used to test the null hypotheses at .05 level of significance. The results revealed that self-skill, lack of time, academic anxiety, academic workload and religious activities were perceived as significant constraints to physical activity among postgraduate students of the Pondicherry University. It was recommended that the University directorate of sport should organize such activities requiring little or no special skills, proper scheduling of leisure and PA compatible with the school time table, the school should provide a framework for emergency healthcare particularly for sport injuries and individuals should take responsibilities for their own health by enjoying the leisure time. Also, school authority should work in collaboration with various religious leaders within the campus to establish control and effective time management.

Keywords: Physical activity, Constraints, Postgraduate students, Leisure activity

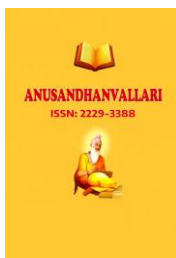
INTRODUCTION

Campus recreational sports programs are designed to provide an on-campus leisure opportunity for college life and providing a means for the efficient use of free time. Young, Ross and Barcelona (2013) stated that campus recreational sports are a service provided to offer students an opportunity to participate in sport activities. Most campuses provide a wide variety of programs and activities through sport and games. This is purposely done as it is recognized that not all students prefer to participate in the same way or in the same type of activity. In spite of this, researches still indicate that large number of students on many campuses still do not participate or perform physical activities (PA). For instance, Douglas, Collins and Warren (2005) indicated that 42.2 percent of under-graduates college students did not participate in moderate or vigorous physical activity prior to their survey. Rosen (2010) reported that 74 percent of college students did not engage in vigorous PA during the week prior to his study. Similarly, Suminski and Petosa (2012) found that 47 percent of the college students in their study did not engage in vigorous or leisure services provided within the campus. Professionals responsible for providing these programs often organized over those nonparticipants asking questions such as “Why are more students not participating?” or “What can be done to attract more students to utilize the available leisure services?” Young, Ross and Barcelona (2013) stated that understanding why people choose not to participate in PA or recreation and make wise use of the leisure time to utilize the available



leisure services has been the focus of study for more than 25 years. The term “physical activity constraints” has been defined by Jackson (2010) as the factors that are assumed by researchers and/or perceived or experienced by individuals to limit the formation of PA preferences and or inhibit or prohibit participation and enjoyment in PA. The author further stated that constraints of PA participation are relative to the individual and his/her circumstance. In other words, perception of constraints varies from individual to individual and from type of PA, yet they may also be shared widely within the community, as a result, investigation of PA constraints should be focused on specific types of physical activities within a single community (Jackson, 2010).

Theoretical Perspective Elkins and Beggs (2007) explained that Crawford and Godbey in 1987 put forth a three-level model to conceptualized constraints to leisure services utilization. This model identified three levels of constraints which are intrapersonal, interpersonal and structural constraints. Intrapersonal constraints involve individual psychological states and attributes that interact with leisure preferences and influence individual preference. These factors include personality traits, attitudes and moods. Young, Ross and Barcelona (2013) noted that intrapersonal constraints are considered the most powerful determinants of participation and these include feelings towards participation and competition, shyness, stress, anxiety, perceived self-skill and subjective evaluations of the appropriateness of a particular activity. The second level of constraints consists of interpersonal constraints. This type of constraints is the relationship between individual's character or the lack of a friend or partner with whom to participate in an activity for a variety of reasons, including differing levels of skills or not having similar blocks of available free time (Young, Ross and Barcelona, 2013). Elkins and Beggs (2007) stated that interpersonal constraints also involve the individual's activities and constraints as it relates to the workload and occupation. This may significantly influence leisure preference and participation. The third level which is the structural constraints as explained by Elkins and Beggs (2007) include such factors as the lack of opportunities or the cost of activities that result from the external conditions in the environment. This also involves the lack of time or a lack of money to participate. Similarly, Young, Ross and Barcelona (2013) noted that structural constraints consists of intervening factors that get in the way of participation and this include lack of time or money, attributes of the facilities, (that is, too crowded, not accessible), or commitments to family, job or another activity. When considering it from the structural constraints, lack of facilities within the school and lack of time has constantly been a significant constraint to leisure services utilization among university students. Akindutire and Oyeinyi (2011) stated that lack of standard facilities and equipment, academic stress and university policy on sports has been some of the inhibiting factors to participation in recreational sport activities. Similarly, Oyeinyi (2002) submitted that facilities and equipment are the power house of sport, hence, they are indispensable to competitive and recreational sports. Young, Ross and Barcelona (2013) noted that lack of adequate facilities do not only act as a barrier to PA and sports participation but also modifies and influence the preference of physically active college students. When considered from interpersonal constraints perspective group support is essential. As explained by Drakou, Tzetzis and Mamantzi (2008) peer group and parental influences tend to be some of the factors considered as constraints to PA. When friends have a common activity with similar time frame, it tends to stimulate or motivate each other to participate in recreational activities and leisure services. Parents who understand and regularly participate in recreational activities encourage and motivate their children to participate in PA. The university environment has been considered as one the most stressful environment for both students and of staff as different activities ranging from academic to social are constantly been carried out (Akindutire & Oyeinyi, 2011). It is a common phenomenon that stress build tension within an individual that must be released in one way or the other to ensure a healthy lifestyle. PA and leisure time has been identified as one effectively way of easing tension and pressure. It has been observed that most Pondicherry University postgraduate students do not participate in recreational or PA with the available leisure opportunities been underutilized such as the basketball court, the



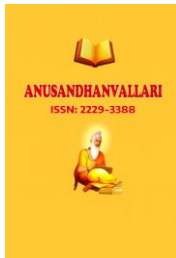
volleyball courts, the hand ball courts, etc often remain vacant. This observation agrees with the report of Douglas, Collins and Warren (2005), Rosen (2010) and Suminski and Petosa (2012) report which indicated that 42.2 percent, 74 percent and 47 percent of campus students respectively did not engage in PA. Often neglected in recent research is the effects of sports skill levels, academic anxiety and religious activities on campus which are basically intrapersonal and interpersonal constraint. This why this study aims as investigating PA constraints as perceived by postgraduate students of Pondicherry University. It is hoped that this will provide understanding to the problem and become the basis for finding solutions.

The following hypotheses were also formulated to guide the study.

1. Lack of self-skill is not a significant constraint to leisure utilization among postgraduate students of Pondicherry University.
2. Lack of time is not a significant constraint in the utilization of leisure among postgraduate students of Pondicherry University.
3. Academic anxiety is not a significant constraint to the utilization of leisure among postgraduate students of Pondicherry University
4. Academic workload is not perceived as a significant constraint to leisure utilization among postgraduate students of Pondicherry University.
5. Religious activities on campus are not perceived as a significant constraint to leisure utilization among postgraduate students of Pondicherry University.

METHOD

The research design adopted for this study was the survey design. This design was considered appropriate based on the fact that the information in this study was needed exactly the way they existed in the population. According to Akpabio and Ebong (2009), this design is relevant when the researcher is required to undertake a systematic collection, analysis and presentation of data to give account of the characteristics of particular individuals, groups or the state of events without the manipulation of data as applicable in experimental studies. Since the study was aimed at seeking information on the perceived constraints of Pondicherry University students towards PA, the design was considered suitable. The target population for this study comprised of all Pondicherry University postgraduate students, irrespective of program or level. The on-campus population of University postgraduate students for the academic 2017/18 year stood 5800. A sample size of three hundred respondents was drawn for this study using stratified and clustered sampling technique. Stratification involved dividing the population into separate strata on characteristics to be closely associated with variables under study, and clustered sampling technique is one where more than one stage of selection is used. Pondicherry University has 15 schools and in each school there are cluster of faculties and departments. Response was taken from 20 students from each school and a sample of 300 students was gathered. The researchers personally administered the questionnaires to the respondents with the help of two trained research assistants. The students that were sampled are those from the chosen faculties. The researcher and the research assistants visited the venue of their lecture halls of the selected faculties, the questionnaires were distributed after seeking the consent of the students. The completed questionnaires were retrieved on the spot to ensure a high successful return rate of 278 out of the 300 distributed. The data generated from the questionnaire were coded, summarized and analyze using chi-square statistics to test the null hypotheses at .05 level of significance.



A 20 item self-developed questionnaire was used as instrument for data collection. The instrument was divided into the sections, A and B. Section A was designed to collect bio-data of respondents while section B was designed to collect data relevant to the variables under study, that is, self-skill, time, anxiety, academic workload and religious activities and leisure utilization. A four type of Likert scale were used with Strongly Agreed, Agreed Disagreed and Strongly Disagreed scale.

RESULTS AND FINDING

Hypothesis 1: Lack of confidence is not a significant constraint to leisure utilization among postgraduate students of Pondicherry University.

Table 1: Summary of Chi-square test of lack of self -skill as constraints to PA

Options	Values (Frequency)	χ^2 -Cal	χ^2 -Crit	Remark
Strongly Agreed	56			
Agreed	160			
Disagreed	49			
Strongly Disagreed	13			
Total	278	163.8	7.82	Significant

df = 3, $P \leq 0.05$

The result in the table above show that the chi-square calculated value of 163.8 is greater than the critical value of 7.82 at .05 level of significance and degree of freedom of 3. This result is significant, hence, the null hypothesis rejected, meaning that lack of self skill is perceived as a significant constraint to PA among University students. In the course of this study, the first finding was that self-skill is perceived as a significant constraint to PA among University students. It was found that 77.6 percent of the respondents indicated that they are aware that every PA requires some level of confidence in which they do not consider themselves to possess such level. Also, they feel they do not have the stamina/energy required and this limit their PA participation. The test of the hypothesis yielded a significant result of 163.8 as against the critical value of 7.82 at .05 level of significance. This result is in line with the opinion of Menon (2008) which stated that the efficacy and successful participation of an individual in any physical activity largely depends on his/her perception about his/her energy level, self-skill required for the activities and the perceived benefit of the activities. The result is also similar to that Philips (2009) who reported that in his study, lack of will power (98.5%) was the most important barrier to leisure activity participation, followed by lack of energy and self-skill (91.0%).

Hypothesis 2: Lack of time is not a significant constraint to the utilization of leisure among postgraduate students of Pondicherry University.

Table 2: Summary of Chi-square test of lack of time as constraints to PA

Options	Values	χ^2 -Cal	χ^2 -Crit	Remark
Strongly Agreed	52			
Agreed	129			
Disagreed	62	73.29	7.82	Significant
Strongly Disagreed	35			
Total	278	73.29	7.82	Significant

df = 3, $P \leq 0.05$

The chi-square test of the above hypothesis shows that the chi-square calculated value of 73.29 is greater than the critical value of 7.82 at .05 level of significance and degree of freedom of 3. And because of this, the result is considered significant, thus, the null hypothesis is rejected, meaning that lack of time is perceived as a significant constraint to leisure utilization among University students. It was found that 65.1 percent of the respondents agreed that lack of time has been their major constraint as they have numerous engagement and most leisure and PA scheduling conflict with the important engagements which leaves them with limited time to think of PA participation. The test of the hypothesis yielded a significant result of 73.29 against critical value of 7.82 at .05 alpha level. This result is in line with Daskapan, Tazun and Eker (2006) who reported that the most commonly cited barrier by University students in their study was lack of time due to study commitments and responsibilities related to family and social environment. Similarly, Cheng and Hashem (2007) noted that for any type PA to be attractive to students significantly, the scheduling of the activity, coupled with adequate equipment, supplies of facilities and staffing must be considered.

Hypothesis 3: Academic Anxiety is not a significant constraint to the utilization of leisure among postgraduate students of Pondicherry University.

Table 3: Summary of Chi-square test of academic anxiety as constraints to PA

Options	Values	χ^2 -Cal	χ^2 -Crit	Remark
Strongly Agreed	45			
Agreed	101			
Disagreed	63	22.98	7.82	Significant
Strongly Disagreed	69			
Total	278	22.98	7.82	Significant

df = 3, $P \leq 0.05$

The result in the above table shows the chi-square calculated value of 22.98 to be greater than the critical value of 7.82 at .05 level of significant and degree of freedom of 3. This means that the result is significant; hence, the null hypothesis is rejected. This result means that academic anxiety is perceived as a significant constraint to PA by postgraduate students of the University. It was found that 52.5 percent of the respondents considered leisure and PA to stressful, fear of injuries, poor performance and the perception of others have hindered their participation in leisure activities. The test of the hypothesis gave a significant result of 22.98 at .05 level of significance. This result agrees with the earlier report of Jones (2008) which stated that anxiety may arise from such situations as societal expectations, feeling of dissatisfaction, concern for personal safety and issue of self-skill. In the same way, Omolayo, Olawo and Omole (2013) reported that some young adults are afraid that fitness exercise would be too stressful and could harm them, this leads to nonparticipation.

Hypothesis 4: Academic workload is not perceived as a significant constraint to leisure utilization among postgraduate students of Pondicherry University.

The result from the chi-square test of the above hypothesis are indicated in Table 4, and is significant because the chi-square calculated value of 129.42 is greater than the critical value of 7.82 at .05 level of significance and a degree of freedom of 3. Therefore, the null hypothesis is rejected meaning academic workload is perceived as a significant constraint to PA by University students.

Table 4: Summary of Chi-square test of academic workload as constraints to PA

Options	Values	χ^2 -Cal	χ^2 -Crit	Remark
Strongly Agreed	77			
Agreed	115			
Disagreed	63	129.42	7.82	Significant
Strongly Disagreed	23			
Total	278	129.42	7.82	Significant

df = 3, $P \leq .05$.

It was found that 69.1 percent of the respondents indicated that the lectures last late into the evening, they spend most of time on school work with bulky materials to cover and numerous assignment to be submitted in limited time. This takes better part of their time limiting the leisure utilization. The test of the hypothesis yielded a significant result of 129.42 at .05 alpha level.

Hypothesis 5: Religious activities on campus are not perceived as a significant constraint to leisure utilization among postgraduate students of Pondicherry University.

Options	Values χ^2 -Cal χ^2 -Crit Remark			
Strongly Agreed	32			
Agreed	76			
Disagreed	101	35.12	7.82	Significant
Strongly Disagreed	69			
Total	278	35.12	7.82	Significant

df = 3, $P \leq .05$.

The result as presented in the above table shows that the chi-square calculated value of 35.12 is greater than the critical at .05 level of significance. This result is significant thus, the null hypothesis is rejected, meaning, religious activities is a significant constraint to PA among University students. The result revealed that 38.8 percent of the respondents strongly agreed and agreed that they have temple and masjid activities every day of the week, belonging to different religious organizations demanding their time and presence.

CONCLUSIONS AND RECOMMENDATIONS

University students are always on intense stress and if this remains unmanaged it can have adverse effects on the health of the students. Leisure and PA can provide a good opportunity for students to enhance their own well-being. The result from this study has been able to reveal that the available leisure activities within the campus have been under-utilized by students. This is because some barriers such as lack of self-skilled, lack of time, academic anxiety, academic work load and religious activities have become barriers to effective use of leisure time. The school is not just established to provide only educational services, but also other services such as health services, recreational services, etc. It therefore beckons on the school authority to take a critical look at these barriers and find a way to conscious remove or reduce such barriers and promote a healthy, active lifestyle among students and the general campus community. The recommendations given in this study are based on the findings reported above and it is hoped that when adopted, they will increase PA participation by students and promote good health.

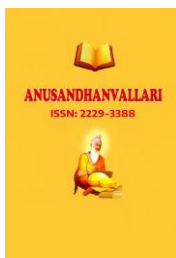
1. The university sport directorate should launch sensitization program's to educate the students on some simple leisure and recreational activities requiring little and no special skills for participation. This can be done by creating various sports clubs mandating every newly admitted student to belong to one. This will provide better understanding of leisure and recreation clearing the wrong perception about specialized skills required to leisure utilization and which will help in raising their confidence level.
2. Scheduling of leisure activities within the campus and equipping students with proper time management skills by introducing such topics into the General courses offered by school. This will stimulate the interest of students to make themselves available at the recreational and leisure time activities provided by the school.
3. The University authority should provide a framework for providing emergency healthcare particularly for sport accidents. Employees of such units should always come out to provide first aid for students at different recreational venues within the campus. This will provide psychological boost for students and giving them a feeling of satisfaction when participating in leisure activities.

4. Curriculum and time table planners within the university should work hand in hand with the sport directorate to develop a time table that recognizes the importance of leisure and recreational activities giving ample time to students to participate in such activities as designed by the school sport directorate.
5. The University authority should work with religious leaders operating fellowship and religious meetings within and around the school that have students as majority of its members. Such religious leaders should also work with the consciousness that the school has its own program's and proper scheduling of both activities can help and limit their meeting days to twice or thrice a week, also students should take responsibilities for their own well-being understanding the need for leisure and making efforts to avail themselves of such opportunity.

This study is limited to a population of 278 participants attending a public university. Future studies can be conducted to compare populations at both public and private universities as well as cross-cultural populations. While this study is a quantitative study that examined 20 items related to 5 constraining factors, additional qualitative studies may provide a deeper understanding of LTPA constraints among university students, including the relationship between PA levels and constraints. Moreover, a next step should concentrate on developing ways to limit the effects of these constraints by either intervening in the PA environment or raising awareness among university students about the problems of inactivity.

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