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Study about Physical Activity among Female Research Scholars residing in Hostel's of Banaras Hindu University, Varanasi, India

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Abstract

It is well known fact that physical activity is directly linked with better health outcomes. Education is also indirectly linked to better health behaviour. The main objective of present study is to study the level of physical exercise of female Research Scholar (science stream) residing in hostel of Banaras Hindu University, Varanasi, 50 participants were selected randomly. A self-structured interview schedule was used to collect the information. The mean age of respondents was 26.89 years, (range= 24 to 31 years). Body Mass Index of the whole sample varied from 17.10- 34.37 with a mean BMI of 23.92. Body Mass Index (BMI) research scholar shows that 18% participants were underweight, 50 % participants were average weight, 26% were overweight and 6% were obese. Out of total 32 participants were exercised daily. Physical activity generally they engaged was brisk walking, jogging, dancing, badminton, skipping, swimming, yoga, cycling, while rest 18 were not doing the same due to many reasons i.e. laziness and lack of time (most of them go in early morning and back in the evening). Overall 62.5 % research scholars met WHO guidelines (for 18-64 years) of at least 150 minutes of moderate-intensity aerobic physical activity per week. Nearly 50% respondents spend more than 7 hours with their laptop/ PC, the main sources for their fitness and health is online material (i.e. Google surfing, health blogs, Wikipedia, online articles, journals etc.), and print media (i.e. newspapers and magazines etc.). Participants are in good health conditions as they are engaged in different physical activity. To improve overall health for increasing resistance to illness and diseases and improvement in appearance is the main reason for exercise among research scholar.

Keywords: Physical activity, research scholar, overall health, fitness.

Introduction

According to WHO decrease in of physical movement is nowadays is fourth prime cause of mortality worldwide. Physical activity levels are deteriorating in many countries result foremost implication for incidence of non-communicable disease (NCDs) and overall health of population worldwide[1]. Satisfactory level of physical activity cuts the hazard for a number of non- communicable diseases such as cancer and cardiac disease. Globally one-fourth of cancers may be attributed to overweight and inactivity[2-4].

According to WHO physical activity as any physical effort produced by skeletal muscles that need energy expenditure – includes activities i.e. while working, playing, carrying out household chores, travelling, and engaging in recreational pursuits. The term "physical activity" is not synonymous with "exercise", which is a subgroup of physical activity that is intentional, planned, monotonous, with the aims to improve or sustain one or more constituents of physical fitness. Physical activity whether moderate or vigorous strength helps to bring positive health benefits.

Though genetic roots must account for a major portion of age-related weakening in physical activity[5]. Young adulthood demands major moves possibly bring about independent housing, college, adult employment, long term relationships, and all related financial responsibilities. New life conditions of work and family duties create different demands on time[6-9], additionally, societal expectations relating to roles and monetary resources differ for young adults, compared to adolescents[10]. Increased activity demand in work and domestic life consequently affect the ease for physical activity in young adulthood. The events of going college, starting job, getting married and rearing children are gender-inflected[11].

It shows that low level of motivation, time limits and inconvenience were the most cited reasons for academy students for not take part in physical activity. On the other hand, the social benefits of exercising with friends and physical look improvements were significant motives for engaging in physical activity in college students[12,13]. World Health Organization (WHO)[1], in 2005 reported approximately 1.6 billion adults were overweight and about 400 million were obese; the WHO projects that by 2015 2.3 billion adults will be overweight and more than 700 million will be obese. WHO defines overweight and obesity in terms of fat: abnormal or excessive fat accumulation that may impair health. Although BMI is the most frequently used method to assess body composition.

Body mass index (BMI) or Quetelet Index is a measure of body fat based on height and weight. This index is a ratio of weight to

height squared [BMI= weight (kg)/ Height (m^2)], it provides reasonably indication of nutritional status of adults classification has been suggested by James et al. and Luizz et al[14].

Table-1
Adults classification

BMI CLASS	Presumptive diagnosis
< 16.0	Chronic energy deficiency –Grade III
16.0-17.0	Chronic energy deficiency –Grade II
17.0-18.5	Chronic energy deficiency –Grade I
18.5-20.0	Low weight – Normal
20.0-25.0	Normal
25.0-30.0	Obese Grade I
>30.0	Obese Grade II

The objective of this study was to know the habits of Research Scholar how they incorporate physical activity into their routine.

Material and Methods

Subjects: The study was conducted at Banaras Hindu University campus among girls residing in hostels of Varanasi district. Fifty research scholars who were pursuing research in science were recruited for this study after giving their informed consent, participants were selected randomly.

Procedure: Participants signed up for the study which was held during evening snacks time (6:00 pm to 8:30 pm). Participants were informed about the purpose of the study and oral consent was taken. A self-structured interview schedule was developed and used to collect the information from them. This schedule were divided into two first part consist general information of participant i.e. name, age, height and weight were taken.

And second part consist questions related to their physical activity i.e. do they exercise, what form of physical activity they perform, how many time and how many hours they spend in doing so, if not engaged in any physical activity what is the reason and what are the sources through they get informed about health and fitness related facts.

Statistics: The collected data was compiled into simple frequency table, percentage were computed.

Results and Discussion

Participants Characteristics: Table 2 outlines characteristics of all the participants included in the analysis. Out of 50 participants 18% girls were belongs to age group below 25 years, 66% were between 25-28 years while 16 % were above 28 years.

Above table shows that only 50 per cent respondents were lying in normal BMI (18.5 to <25) while rest 50 per cent are suffering either underweight or overweight. Schutter et.al.[15] showed that Body Mass Index and Body Fat were highly correlated(r=0.60; P<.001).

Physical activity of research scholar and factors affecting: Table 3 illustrates that out of 50 respondents 64 % were engaged in at least one physical activity while 36% reported not doing any physical activity or exercise due to laziness, lack of time and not interested in doing so. Out of 32 participant who were engaged in physical activity 40.62 % were doing brisk walking 37.5% go for swimming, 15.62 % prefer jogging, 15.62% badminton 21.87% were in other activities (i.e. cycling, yoga,) only 6.25% dancing and skipping respectively.

Only 50% respondents were exercising daily while 37.5% respondents exercised 2-3 times in a week and 12.5 % participants for more than 3 times, in a week. Out of 32 respondents 75% were doing it less than 1 hour, while 25% were doing for at least 1 hour.

Table-2
Characteristic of Respondents

Age (years)	(N=50)	%	Mean , range
< 25	9	18	Mean age=26.89 Age range=24-31 year
25-28	33	66	
>28	8	16	
BMI(kg/m^2)			Mean BMI=23..92 MBI range = 17.10-34.37
Underweight : < 18.5 kg/m^2	9	18	
Normal :18.5 to < 24.9 kg/m^2	25	50	
Overweight $\geq$25 to < 29.9 kg/m^2	13	26	
Obese: $\geq$ 30 kg/m^2	3	06	

Table-3
Physical activity of research scholar and factors affecting

	Variables	(N=50)	percentage
Do exercise/ physical	Yes	32	64
	No	18	36
If Yes form of Physical activity	Brisk walking	13	40.62
	Jogging	5	15.62
	Dancing	2	6.25
	Badminton	5	15.62
	Skipping	2	6.25
	Swimming	12	37.5
	Other	7	21.87
How many times	2-3 times per week	12	37.5
	>3 times per week	4	12.5
	Daily	16	50
	Other	-	
How many hours	Less than 1 hour	24	75
	1 hour	8	25
	>1 hour	-	
Reason for not doing exercise	Not interested	20	40
	Not enough time	12	24
	Laziness	5	10
	Safety reasons	6	12
	Lack of parks	0	-
	Other	0	-

Motivation Sources of health and fitness among Research Scholars: Majority of respondents reported that they do physical activity to improve overall health, increase resistance to illness and diseases and improvement in appearance is the main motivation for exercise. Nearly 50 % respondents work with their laptop/ pc for more than 7 hours hence the main sources for their fitness and health is online material (i.e. Google, health blogs, Wikipedia, online articles, journals etc.), magazine newspaper etc.

Discussion: One of the major problems that is seen these days is that girls suffer from weight issues and are obese. They are so demotivated to exercise that do not feel like working out or follow a proper diet. The aim of this study was to study about physical activity of female research scholars living in hostel in Banaras Hindu University, Varanasi. For this 50 research Scholar who were pursuing Ph.D. In Science Stream and living in hostel were selected. The mean age of participants is 26.89 years, range 24-31 years were analyzed. Body Mass Index (BMI) across the whole sample ranged from 17.10- 34.37 with a mean BMI of 23.92. Using BMI scores 18% participants were underweight 50 % participants were average weight, 26% were overweight and 6% were obese. Out of total 32 participants were exercised daily. While rest 18 were not doing the same due to many reasons i.e. laziness lack of time (most of them go in early morning and back in the evening). Overall 62.5 % research scholars met WHO guidelines (for 18-64 years) of at least 150 minutes of moderate-intensity aerobic physical activity per week. The majority of adults, however, do not obtain sufficient levels of physical activity to derive the health benefits.

The main motivating factors among fitness freak research scholar were to improve their overall health, increase resistance to illness and disease and improvement in appearance. Beside this the socio-economic integration of both young women improved literacy and basic education, founded on and leading to better health.

Facts and knowledge about fitness wellbeing about physical conditions functions are marked determinant of health outcomes[16]. Yet, as information (learning to know) is only valuable if reinforced by positive attitudes (learning to be) and useful skills (learning to do), the ability to recognize a potential problem must be accompanied by the will and the identification of the means necessary to avoid it[17]. Nearly 50 % respondents work with their laptop/ pc for more than 7 hours hence the main sources for their fitness and health is online material (i.e. Google, health blogs, Wikipedia, online articles, journals etc.), magazine newspaper etc.

Conclusion

It is evident that lack of adequate physical activity increases the risk for non-communicable disease in developing and developed countries Regular exercise is helpful to protect from heart disease and stroke, high blood pressure, noninsulin-dependent diabetes, obesity, back pain, osteoporosis, and can also boost

self-esteem, mood, sleep quality and energy, besides all helpful in reducing stress, depression, dementia and Alzheimer's disease. Physical activity is an easy, cheap, and effective way to avoid a number of health risk along with cardiovascular disease, and the benefits add, irrespective of the age at which a person initiates an exercise program. Reduced health risk as a result of regular exercise will not only improve the quality of life, but will increase the life expectancy for millions of human globally.

Suggestion: i. The level of physical to stay healthy depends on age. According to WHO for adults (18- 64 years) need at least 150 minutes (2 hours, 30 minutes) of moderate intensity aerobic activities in a week. Moderate intensity activities include fast walking, water aerobics, double tennis, hiking, rollerblading, volleyball, basketball. ii. Jogging or running , swimming fast, single tennis, football, rugby skipping rope, hockey, aerobics are some of vigorous intensity activity could be performed for 75 minutes in place of moderate intensity activity in a week.

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