



A CROSS –SECTIONAL STUDY IN 20-40 YRS OLD PARTICIPANTS FOR EXERCISE PATTERN AND ITS ASSOCIATION WITH VARIOUS DEMOGRAPHIC FACTORS

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ABSTRACT **Introduction:** The adults should do at least 30 minutes of moderate-intensity exercise five times per week, vigorous-intensity exercise for at least 20 minutes per day, three days per week, or a combination of both moderate and vigorous activity as per recommendations of American College of Sports Medicine. The number of cases of chronic diseases are increasing as population is living for longer age and they are following unhealthy life style. The present study was planned with objective to find pattern of exercise and factors associated with regular exercise pattern

Materials and methods: The present study was conducted in urban slum area attached to Medical College. Participants between age of 18-40 were included in the study. Pre-tested questionnaire were given to participants and answer were sought from them. The data was obtained with various factors affecting adherence to exercise, including demographic factors, medical conditions, and access to health care.

Results: 54.49% respondents were doing exercise on regular basis while 45.51% were not doing exercise on regular basis. When respondents were asked when did last time they do exercise, 52.81% said in last week followed by more than 1 month in 17.42%. When respondents were asked reasons for not exercising, 32.10% respondents give lack of motivation as reason, 28.40% respondents give lack of time.

Conclusion: The inclusion of exercise into the daily routine is an important lifestyle change for many patients. Nearly half the Indian population does not exercise daily, we suggest measures be taken to inspire better rates of participation in exercise, perhaps via a structured program for providing tailored education regarding physical activity with individual-level tailoring and with population-wide initiatives.

KEYWORDS : Exercise pattern, demographic factors

INTRODUCTION

The adults should do at least 30 minutes of moderate-intensity exercise five times per week, vigorous-intensity exercise for at least 20 minutes per day, three days per week, or a combination of both moderate and vigorous activity as per recommendations of American College of Sports Medicine [1]. The number of cases of chronic diseases are increasing as population is living for longer age and they are following unhealthy life style [2]. In developing countries, number of cases of diabetes and hypertension are increasing [2]. Diabetes currently affects more than 62 million Indians. The average age on onset is 42.5 years. Nearly 1 million Indians die due to diabetes every year. National Family Health Survey (NFHS)-IV evaluated hypertension in a large population based sample ($n=799,228$) and reported hypertension in 13.8% men vs. 8.8% women (overall 11.3%) aged 15–49 and 15–54 respectively. It has been found that persons having diabetes and hypertension and doing exercise or physical activity are having less risk of cardiovascular diseases [3]. In a study by Lee IM et al in Lancet found that the elimination of physical inactivity would increase the life expectancy of the world's population by 0.68 years (range, 0.41-0.95 years) [4].

Worldwide, 6% of the burden of disease from coronary heart disease, 7% of the type 2 diabetes burden, 10% of the breast cancer burden, and 10% of the colon cancer burden are due to physical inactivity [4]. As physical inactivity could not be avoided totally but if reduced by 10% or 25%, more than 533,000 deaths and more than 1.3 million deaths, respectively, could be averted every [4].

Problem with exercise was its continuity. It was found that most of individuals stop exercise programme within the first six months [5]. Problem with continuation of exercise lies in lack of motivation for it and other problems like finding time for it in a busy schedule, and sticking to the regimen for a long duration. The present study was planned with objective to find pattern of exercise and factors associated with regular exercise pattern.

MATERIALS & METHODS

The present study was conducted in urban slum area attached to Medical College. Participants between age of 18-40 were included in the study. This study was approved by the Ethics Committee. A written informed consent was obtained from all participants before

collecting the data. Study duration was July to October 2017. Inclusion criteria was that participants should not have contraindication to at least some form of voluntary exercise. Pre-tested questionnaire were given to participants and answer were sought from them. The exclusion criteria was those who were not able to engage in any form of exercise due to disability or medical reasons. The data was obtained with various factors affecting adherence to exercise, including demographic factors, medical conditions, and access to health care.

RESULTS

A total of 178 study participants were included in the study. 91 (51.12%) study participants were male and 87 (48.88%) were female. Most of the study participants belong to 26-30 yrs age group i.e. 33.15% followed by 47 (26.40%) in 20-25 yrs age group.

54.49% respondents were doing exercise on regular basis while 45.51% were not doing exercise on regular basis. When respondents were asked when did last time they do exercise, 52.81% said in last week followed by more than 1 month in 17.42% respondents. 6.18% respondents didn't remember last time when they did exercise. When respondents were asked reasons for not exercising, 32.10% respondents give lack of motivation as reason, 28.40% respondents give lack of time followed by lack of knowledge in 23.45% respondents. (Table 1).

The most common reason for exercising was presence of health condition in 46.39% respondents followed by self motivation in 29.90% respondents.

Regarding exercise pattern, 48.45% respondents were doing low-intensity exercises like slow cycling, slow walking, or yoga, and 31.96% respondents were doing moderate-intensity exercise like brisk walking, jogging, or dancing. Only 19.59% respondents were engaged in high-intensity exercise like running, aerobic dancing, or swimming. To find out association between adherence to exercise and various demographic factors, chi square test was applied. (Table 2). There is no statistically significant difference between variables like presence of medical condition and advice regarding health care with respect to adherence to exercise. There is statistically significant difference between variables like age and gender with respect to adherence to exercise.

DISCUSSION

The age distribution of the study population showed a relatively younger population as most of the study participants belong to 26-30 yrs age group i.e.33.15% followed by 47(26.40%) in 20-25 yrs age group,these are mainly due to the design of the study. Many of the patients were educated with either a graduate or postgraduate degree; this again can be attributable to the study population being predominantly urban where access to education is more readily available than in rural areas. More than half the population had a routine habit of exercising, which closely matched with the reported data that 52.81% did some exercise in the last week. Even among the patients who did not exercise regularly, a very small proportion of about 6.18% reported they did not remember the last time they exercised, suggesting a large number of the people in the study population participated in some physical activity. This finding was similar to study done by Lawton [6] on a south Asian population who migrated to the United Kingdom in that a lack of time was the most commonly stated reason for not exercising. A significant proportion of respondents (32.10%) also mentioned a lack of motivation as the reason for the lack of physical activity, which, according to previous studies, can be modified by health education [7]. Surprisingly, most of the population preferred to do low- to moderate-intensity exercise, which, as per previous studies, has shown to have better compliance when compared to high-intensity exercise [7].

There was no significant association between BMI and adherence to exercise, which is not preferable as people with higher BMI are expected to exercise regularly-which again can be attributable to lack of health education. A structured program for providing education regarding physical activity with individual-level tailoring and with population-wide initiatives may inspire better rates of participation in exercise.

CONCLUSION

The inclusion of exercise into the daily routine is an important lifestyle change for many patients. Nearly half the Indian population does not exercise daily,we suggest measures be taken to inspire better rates of participation in exercise, perhaps via a structured program for providing tailored education regarding physical activity with individual-level tailoring and with population-wide initiatives.

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Conflicts of interest

There are no conflicts of interest.

Table 1:Exercise characteristics of study variables(n=178)

Variable	Number (%)
Doing exercise on regular basis	
Yes	97(54.49%)
No	81(45.51%)
Last time when did exercise	
Do not remember	11(6.18%)
Last week	94(52.81%)
• 1 Week	29(16.29%)
• > 1 month	31(17.42%)
• 1 yr	13(7.30%)
Reasons for non exercising	
I do not think i need exercise	8(9.88%)
Lack of access to physical activity	5(6.17%)
Lack of knowledge on exercise	19(23.45%)
Lack of motivation	26(32.10%)
Lack of time	23(28.40%)
Source of motivation for regular exercise	
Family,friend,spouse	12(12.37%)
Health condition	45(46.39%)
Self motivation	29(29.90%)
Social media	11(11.34%)
Pattern of exercise	
High intensity(running,swimming,aerobic dancing)	19(19.59%)
Low intensity(slow cycling,slow walking,yoga)	47(48.45%)
Moderate intensity (brisk walking,jogging,dancing)	31(31.96%)

Table 2:Association of exercise with various factors

Variable	Doing exercise	Not doing exercise	p value
Age			
20-25	27(57.45%)	20(42.55%)	P value=0.0493 Signi.
26-30	31(52.54%)	28(47.46%)	
31-35	29(67.44%)	14(32.56%)	
36-40	10(34.48%)	19(65.52%)	
Gender			
Male	43(47.25%)	48(52.75%)	P value=0.047226 Signi.
Female	54(62.07%)	33(37.93%)	
Association with medical condition			
Yes	29(51.79%)	27(48.21%)	P value= 0.622954 Not signi.
No	68(55.74%)	54(44.26%)	
Health care advice received			
Yes	51(61.45%)	32(38.55%)	P value=0.081717 Not signi.
No	46(48.42%)	49(51.58%)	

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