

Leisure -Time Physical Activity Habits Among Physicians

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Objective: To estimate the prevalence of leisure-time physical activity habits among Ministry of Health Primary care doctors in Bahrain. Also, to identify the reasons for engagement in physical exercise among the study population, and the reasons for not engaging in physical activity.

Design: Cross sectional study.

Setting: Ministry of Health primary care Health Centers in Bahrain.

Subjects: 153 Ministry of Health Primary care physicians.

Main outcome measure: An activity level with an energy expenditure of more than 1000 Kilo calories per week.

Results: Active individuals formed 29.7 % of the studied population. Males were more active (44.3%) than females (18.2%). There was no statistical differences between Bahraini and non Bahraini in relation to level of activity. Activity increases as age increases. Smokers were more active (55.6%) than non-smokers (25.8%). The main reasons for engaging in physical activity were, fitness (31.25%), weight reduction (25.89%) and health (14.28%). The main reasons for not engaging in physical activity were lack of time (42.42%), home and children (18.18%), work and duties (15.15%), lack of interest (7.87%).

Conclusion: Primary care physicians are more active (29.7%) than the general population (8.3-22%). The older age groups and smokers were more active. The most common barrier to exercise was lack of time, and the most common motivator was fitness.

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The benefits of physical activity are well known for several chronic diseases. It increases longevity by an average of 1-2 years^{1,2}. Inactivity is associated with increased mortality. Patterns of physical activity vary with demographic characteristics. Men are more likely than women to engage in regular activity, in

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vigorous exercise and sports. The time spent in engaging in physical activity declines with age. Adults at retirement age (65 years) show some increased participation in activities of light to moderate intensity, but overall physical activity declines continuously as age increases³. People with higher levels of education participate in more leisure-time physical activity than do people with less education^{3,4}.

Lack of time is the most commonly cited barrier to participation in physical activity and injury is a common reason for stopping regular activity⁵. Cigarette smoking is weakly inversely related to participation in physical activity, but smokers are more likely than non-smokers to drop out of exercise programs. Persons who are obese are usually inactive³.

A number of physical and social environmental factors can affect physical activity, behavior, family and friends can be role models, which provide encouragement, or be companions during physical activity⁶. The environment often presents important barriers to participation in physical activity for example lack of bicycle trails, walking paths and weather. Excessive television watching may deter a person from being physically active.

A physician needs to be educated about physical activity to be able to promote it, and in his “inherent position as a role model” he should set good examples for people to copy and make his endorsement of physical activity more credible⁷. Unfortunately, some physicians in our region are not good role models for their patients.

Patients should routinely be advised to adopt and maintain regular physical activity. Physicians advice can be effective because patients respect this advice and change their exercise behaviors accordingly⁸.

Recommendation: Every adult should exercise at least thirty minutes or more of moderate intensity physical activity on most days of the week (expend approximately 200 calories per day)^{3,9}.

A study in Saudi Arabia, which measured physical activity among primary care physicians in Riyadh City found that 21.5 % were inactive, 55% were under active and 23% were active¹⁰.

In Bahrain one study found that most people lead sedentary life style with 87.3 % of men and 91.7% of women leading sedentary life style¹¹.

Objectives:

1. To estimate the prevalence of current leisure-time physical activity habits among Ministry of health primary care doctors in Bahrain.
2. To identify the reasons for engagement in physical exercise among the study population.

- To identify the reasons for not being engaged in physical exercise among the study population.

METHODS

A survey of hundred and thirty eight doctors working in twenty health centers in Bahrain was done. An anonymous self administered structured questionnaire were completed . The Physical Exercise was graded into,

Sedentary: Those expending less than 1000 Kilo calories per week at physical exercise¹².

Active: Those expending more than 1000 Kilo calories per week at physical exercise¹².

The energy expenditure was measured using standardized tables for each type of exercise activity and then multiplied by the duration of the activity¹³. Each type of activity is given a specific metabolic score METs value in which one MET equals (1 Kcal/ Kg/hr).

For example an activity of 4.0 METs done for ½ an hour 3 times per week by an individual of 75 Kg can be calculated by the following formula:

(frequency x duration x MET x weight) = 3 x ½ x 4.0 x 75 = 450 Kcal/week expended by that person.

RESULTS

Hundred and thirty eight physicians participated in this survey, out of 153 target group who work in the health centers. The response rate was 90.1%, males 55.8% and females 44.2%. Bahraini were 69.9% and non-Bahraini 30.4%. The mean age was 39.3 years ± 6.7 SD. The body mass index of the respondents were 26.8 s kg/m² ± 4.5 SD. Ninety six point four percent were married and 88.4% had children. Smokers of both sexes were 13%, while in males 27%. Thirty two physicians (23.2%) had chronic diseases.

Male physicians (44.3%) were more likely to engage in physical activity than females (18.2%). The prevalence of a sedentary lifestyle was higher among females than their male counterparts. (P<.05). The percentage of smoking was slightly higher in the active group 55.6% compared to 44.4% in the sedentary group (P<.05).

There was no statistical differences between Bahraini and non Bahraini in relation to level of activity (Table 1).

Table 1. Relation between Level of activity and gender, nationality, smoking status, and the chronic illnesses

Gender [%]		Nationality [%]		Smoking Status [%]		Chronic illness [%]	
Male	Female	Bah	Non Bah	Smoking	Non Smoking	Illness	No illness

Sedentary	55.7	81.8	71.9	66.7	44.4	74.2	71.9	70.2
Active	44.3	18.2	28.1	33.3	55.6	25.8	28.1	29.8
P. Value	0.00		0.54		0.01		0.86	

The sedentary lifestyle was high in lower age group (below 35). This changes slightly as we move up the age groups till we reach the older age group (above 45) where the proportion of active persons is higher than the proportion of sedentary ones, P value 0.009. There were no relation between level of activity to the body mass index BMI (Table2).

Table 2. Level of activity in relation to range of age and BMI

	Age Range [%]				BMI Range [%]			
	< 35	35-39	40-44	>44	<20	20-24.9	25-29.9	>30
Sedentary	87.5	70.0	70.0	45.5	100.0	73.8	68.4	65.5
Active	12.5	30.0	29.7	54.5	0	26.2	31.6	34.5
P value	0.01				0.30			

The main reasons for not engaging in physical activity were lack of time (42.42%), home and children (18.18%) and work and duties (15.15%). The main reasons for engaging in physical activity were fitness (31.25%), weight reduction (25.89%) and health (14.28%) (Table3).

Table 3. Reasons for engaging and not engaging in exercise

Reasons for Engaging in Exercise	%	Reasons for not Engaging in Exercise	%
Fitness	31.25	Lack of time	42.42
Weight Reduction	25.89	Home and children	18.18
Maintain Health	14.28	Work and duties	15.15
Protection Against Diseases	6.25	No interest / motivation	7.87
Maintain Weight	5.35	Hot weather	3.63
Improve Shape and Strength	3.57	Pregnancy / confinement	3.30
Reduce Tension	2.67	No company	2.42
Enjoyment	2.67	Expenses of clubs	1.12
Chronic Illnesses	1.78	Chronic illnesses	1.12
Others	6.25	No encouragement	1.12
		Others	3.63

DISCUSSION

Our results show that the level of activity which is 29.7% (44.3% for men and 18.2% for women) is higher than the general population both locally where it stands at 9.9% for women and 19.9% for men in the 30-49 age groups¹¹, and in USA where it stands at 22%³ for all ages.

A higher level of education is a determinant of a healthier life style and increased participation in sport in the West⁶. It was also higher than the level amongst primary care physicians in Riyadh city who had a level of activity of 23.5%¹⁰. Among physicians surveyed, Bahraini and non Bahraini males were more likely

than females to engage in physical activities, females only 18.2% active compared to 44.3% males ($P<.05$). This correlates well with international results³.

Activity was slightly higher among non-Bahrainis 33.3% compared to 28.1% among Bahrainis but this was not statistically significant. Among Bahrainis, females were more likely to be inactive (83.6%) than males (51.4%) and males were more likely to engage in physical activity (48.6%) as compared to females (16.4%).

The percentage of active females in our study was lower (18.2%) than in the Saudi study on female university employees (23.7%). This could be because we used objective measure of the level of activity by Met score, while in their study they used subjective method¹⁴.

Older doctors (above 45) were more likely to be active than their colleagues in their 30s and 40s ($p<.05$). Weight is a problem among our primary care doctors with a mean BMI at 26.8 kg per m², but the activity level among all the weight groups were essentially similar. Small increase in activity was seen among the individuals at the higher end of the BMI scale, the difference was not statistically significant but it may be a reflection of increased activity for the purpose of slimming and health, which was sighted as one of the common reasons for exercising. Smoking was very uncommon among the study population.

Doctors suffering from chronic illness like diabetes, hypertension, and others did not differ in their activity level from their healthy colleagues. The reason cited for participation in physical activity and those that posed barriers to participation were consistent with current literature³.

CONCLUSION

Primary care physicians showed increased physical activity when compared to the general population. Males were more active than females and the older group was more active than the younger age group. Smokers were more likely to be active than the non-smokers. Neither BMI, nationality nor the presence of a chronic illness affected participation in the physical activity. The most common reason for non participation in exercise was lack of time, and the most common one for the participation was fitness and health improvement.

REFERENCES

1. World Health Organization. Exercise for health. Bulletin of the World Health Organization 1995;73:135-6.
2. Linsted KD, Tonstad S, Kuzma JW. Self-report of physical activity and patterns of mortality in Seventh-day Adventist men. J Clin Epid1991;44:355-64.
3. Centers for Disease Control and Prevention. Physical activity and public health. JAMA.1995;273: 402-7.

4. Siegel PZ, Brackbill RM, Heath GW. The epidemiology of walking for exercise. *Am J Pub H* 1995;85:705-10.
5. Helmrich SP, Ragland DR, Leung RW, et al. Physical activity and reduced occurrence of non-insulin-dependent diabetes mellitus. *N Engl J Med* 1991;325:147-52.
6. Sallis JF, Hovell MF, Hofstetter CR. Predictors of adoption and maintenance of vigorous physical activity in men and women. *Prev Med* 1992;21:237-51.
7. Browne D. Prescribing exercise in general practice. *BMJ* 1994;309:872.
8. Lewis BS, Lynch WD. The effect of physician advice on exercise behavior. *Prev Med* 1993;22:110-21.
9. Blamey A, Mutrie N, Aitchison T. Health promotion by encouraged use of stairs. *BMJ* 1995;311:289-90.
10. Al-Shahri MZ, Al-Almaei SM. Promotion of physical exercise by primary health care physicians in Riyadh City. *Saudi Med J* 1998;19:67-69.
11. Musaiger AO, Al-Roomi KA. Prevalence of risk factors for cardiovascular disease among men and women in an Arab gulf community. *Nutr Health* 1997;11:149-57.
12. Lee I, Paffenbager RS, Hsieh C. Physical activity and risk of developing colorectal cancer among college alumni. *J Natl Cancer Inst* 1991;83:1324-29.
13. *Medicine & Science in Sports & Exercise-supplement*. 1997; 29 (6): S11-S14. S150. S159-S161.
14. Almlaat W, Al-Bar H. Preventive practice and non healthy behaviors among female university employees in Saudi Arabia. *Bahrain Med Bull* 1999;21:75-9.