THE INVESTIGATION OF PHYSICAL ACTIVITY FEMALE TEACHERS IN JOLFA

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ABSTRACT

Regarding the increment of a variety of diseases caused by lack of physical activity, it seems necessary to improve life style by increasing the amount of physical activity in order to improve overall health and prevent heart and coronary artery diseases. The aim of this study was to investigate the status of physical activity in female teachers teaching in urban areas of Jolfa. This study is of descriptive analytic nature with the aim of investigating physical activity of female teachers teaching in urban areas of Jolfa. The required data for this study was collected using the International Physical Activity Questionnaire (IPAQ) and the data was analyzed using SPSS software.10% of teachers had light physical activity, 61.7% had moderate and 28.3% had heavy physical activity. The findings show that physical activity in free time is more than physical activity for health, encouraging them to engage more in physical activities and to create a social supportive network seems to be vital and necessary.

Keywords: Teachers, Physical Activity, Female

INTRODUCTION

Nowadays, contagious diseases are known as one of the biggest problems of the society. Coronary artery disease is the major cause of death in women. Statistics show that the number of death caused by heart disease in women will increase 28 percent until 2016.

It is estimated that lack of physical activity is one of the main causes of such diseases as diabetes, breast cancer, colon rectal cancer all over the world, and it causes 22% percent of schematic heart disease. In today's world almost half of the Americans and one third of European people have not met the suggested levels of physical activity.

Therefore, improving the quality of life style by increasing the amount of physical activity and preventing heart diseases, which in turn, can cause a variety of individual, social and economic problems, is emphasized. Some of the benefits of physical activity include losing weight, maintaining ideal weight, reducing the risk of heart diseases and improving physical and mental health.

According to an Australian report published in 2009, the level of engagement in regularphysical activity had increased about 10% (37.2 to 47.7) from 2001 to 2009. This increment had been 11% in women and about 9% in men.

Moreover, findings showed that women's engagement in physical activities was more than men, however, men engaged in physical activities for longer times than women and the tendency to get engaged in physical activities increased both in men and women as their age increased (Annual report, 2009).

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In Canada, Collie *et al.*, (2011) investigated the amount of people's engagement (ages 20 to 79) in sport. Findings of the study revealed that 15% of Canadianadults exercised for15 minutes (moderate to heavy) and 5% of adults exercised for 30 minutes (moderate to heavy) during the week.

Men were more active than women, that is, inactive time for men is 68% while for women this time was 69% in their awake time. Total inactive time for men was 575 minutes while this is 585 minute for women (Colley & Garriguet, 2011).

Danyali *et al.*, (2011) in their study of the relationship between body image, self-efficiency and physical activityin women working in Isfahan University found that 71.6% of women who participated in the study had a less active life style and only 28.4% had an active life style (Danyali *et al.*, 2011).

In a similar vein, (Jalialian *et al.*, 2010) investigated the status of physical activity among working women in the University of Medical Sciences in Hamadan. Findings of the study showed that more than 65% of working women did not have enough activity, 25.7% had irregular physical exercise and only 8.7% of women exercised regularly.

Young and Voorhees' study in the physical, social and individual factors on the amount of physical activity in Black women in Baltimore showed that only 21% of women had heavy exercise 18% did not report any physical exercise and 61% had irregular physical exercise (Young and Voorhees, 2003). Findings of a paper showed that 40% of women had a low level of physical activity (Daniel and Wilbur, 2011).

Having a less active lifestyle is also known to be a serious problem in Iran (Momenan and Delshad, 2011). Bakhtari *et al.*, (2013) in their study of factors affecting the physical activity of working women in Tabriz University proved that 18% of participants had light physical activity 50% had moderate levels of exercise and 32% had heavy physical activity (Bakhtari *et al.*, 2013).

Due to the special cultural structure of our society, women do not engage in some of the activities, moreover, using computers is another factor which has caused working women to be less active. Therefore, it is necessary to find a way to make women to have more active lifestyle and accordingly become happier and healthier. Keeping this in mind, the present study attempts to investigate physical activity of female teachers in Jolfa.

MATERIALS AND METHODS

This study is of descriptive analytic nature with the aim of investigating physical activity of female teachers teaching in urban areas of Jolfa. The sample used in this study includes all the female teachers currently teaching in different schools of Jolfa who did not have a chronic disease or were not pregnant. Those teachers who were pregnant, at educational mission or not living in Jolfa or had specific disease like diabetes or heart disease were excluded from study.

Instruments

Results

The required data for this study was collected using two questionnaires: a questionnaire for demographic scales, and the International Physical Activity Questionnaire (IPAQ).

After getting requisite permissions from directing manager of ministry of education and school principals the questionnaires were distributed among all the teachers teaching in urban areas of Jolfa. The questionnaires were collected after they have been filled out. After collecting the questionnaires; the data was analyzed using SPSS21 software.

Kendall's tau was used to find out the relationship between physical activity and other variables. Chi square Test was used to find out the relationship between the strength of physical activity and other qualitative variables.

RESULTS AND DISCUSSION

In this study, 230 female teachers teaching in 16 different schools of Jolfa were studied.

Table 1: Demographic and social properties of participants

Tuble 1. Demographie and social properties of participants	
Demographic Percent	
characte ristics	
Education	
Diploma	6 (6.2)
AA	69 (30)
BA	142 (7.61)
MA and higher	13(5.7)
Marital Status	
Single	14(6.1)
Married	216(93.9)
Number of Children	
0	30(13)
1	37(16.1)
2 and more	149(70.9)
Age	
Mean (SD)	42.07(5.44)
Weight	
Mean (SD)	67.85(9.19)

Table 2: Classification of teachers according to their level of physical activity

Level of activity	Frequency	Percent %					
Light	23	10					
Moderate	142	61.7					
Heavy	65	28.3					
total	230	100					

Table 3: Level of physical activity according to type of activity

Physical activity	P. value
113.69±152.61	≤0.001
149.90 ± 149.98	≤0.001
414.39±492	≤0.001
66.85±140.36	≤0.001
25.43±15.22	≤0.001
	Physical activity 113.69±152.61 149.90±149.98 414.39±492 66.85±140.36 25.43±15.22

Table 3: shows the amount of teachers' physical activities which included free time activities, commuting and home, related to work (minutes in week) and sitting activities (hours in a week). The amount of physical activity was similar in 16 schools; however, physical activities in doing housework were more than other activities.

Table 4: Teachers' regular physical exercise in a week

Regular exercise in a week	Frequency	Percent
No regular exercise	130	60.0
Less than 2 times	60	26.1
2-4 times	19	8.3
More than 4 times	13	5.7

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		Physical activity level	age	weight	height	number of children	education	Marital status	Husband's Educationlevel	Regular exercise	Willing to attend ir educational sessions
Physical activity level			-0.47	.016	-0.13	.007	003	.020	042	.200**	.123*
Age		-0.47		.161**	.089 [*]	.228**	- .201 ^{**}	.068	- .310 ^{**}	002	.072
weight		.016	.161**		.211 [*]	.078**	113*	.052	- .121 ^{**}	.042	.065
height		031	.089**	.211**		010	.044	.000	.022	011	040
Number of children	of	.007	.228**	.078	010		- .199 ^{**}	.395**	- .182 ^{**}	.073	049
Teacher's level of education	el	003	- .201 ^{**}	113*	0.44	- .199 ^{**}		141*	.273**	079	.003
Marital status		.020	.068	.052	.000	.395**	141*		- 281 ^{**}	.092	.046
Husband's level c education	of	042	- .310 ^{**}	- .121 ^{**}	.022	- .182* *	.273**	- .281 ^{**}	.201	107*	.019
Regular		.200**	002	.042	011	.073	079	.092	107*		.000
willing t attend d educational sessions	to in	.123*	.072	.065	040	049	.003	.046	.019	.000	

Table 5: The relationship between physical activities and demographic variables using Caudle Test

Correlation is significant at the 0.01 level (1-tailed).

Correlation is significant at the 0.05 level (1-tailed).

Table 5 shows that, there is a significant and positive correlation between willingness to attend to educational sessions and physical activity and regular exercise.

Discussion

The aim of this study was to investigate the status of physical activity in female teachers teaching in urban areas of Jolfa in 1393. Findings of the study revealed that 61.7 percent of teachers had moderate level of activity and 28.3 had heavy physical activity. Moreover, it was found that teachers' at home physical activities exceeded other activities (e.g. free time activities, at work activities, or commuting). In many studies, the main obstacle on the way of women's physical activity was time shortage due to housework, taking care of children and other responsibilities at home (Pan and Cameron, 2009; Shibata et al., 2012; Kowal, 2007). Similarly, regarding the average age of women in this study (42.07) similar responsibilities were fund to be the main obstacle on the way of women's physical activities. In Rejali's study, 65% of employees did not have enough physical activity. However, in Nickpoor's study the average time spent

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for physical activities at work was more than average time for free-time physical activities which is inconsistent with findings of present study. This inconsistency may be originated from the fact that the sample selected for this study was homogeneous while the sample used in Nickpoor's study was not homogeneous in terms of different age groups and different occupations (Nikpoor, 2005). Rabbani's study revealed that 70.2 of participants in the study did not have any physical activity at work during a week and the average time for those who had moderate and heavy activity levels was 18 and 17 respectively, which is well in line with the findings of present study. Motafakker *et al.*, proved that lack of physical activity was spread about 65% among the population of Yazd, and the least physical activity was that of employees and business men. Bakhtari et al.,'s study in Iran showed that 18 percent of participants had light physical activity, 50% had moderate and 32 percent had heavy physical activity which is consistent with findings of the present study. These research findings prompt the need for improving physical activities in women (Bakhtari et al., 2013). In 2006, a study in Germany showed that 48.9 percent of all the women did not have any physical activity in their free time; and their physical exercise was less than 50 minutes during the week which is in line with the findings of present study (Haenle, 2006). These findings are consistent with different studies in Europe and America in 2005 which demonstrate that more than 40 percent of adults in 15 European countries did not have any physical activity during a week (Tuomilehto, 2001). Another interesting finding of this study is that there is no significant relationship between age and physical activity; while, Kolt et al., 's study revealed that the amount of physical activity decreases as the age increases. This inconsistency in findings can be justified due to different age groups, difference in the sample size or variety in the demographic characteristics of the participants in the study. Yet, another finding of this study is that there was no significant correlation between education and physical activity while in (Humpers', 2009 and Brown's, 2011) study education was found as a determining factor on the amount and duration of physical activity (Humphreys and Ruseski, 2009, Brown's 2011) Moreover, Momenan et al., (2011) and Didarloo et al., (2012) introduced age as a predictor of the amount of physical activity. This can be justified in terms of differences in the sample used in these studies. For example, the sample used in Momenan's study varied in terms of age, gender and occupation; and Didarloo's study was done on people with diabetes. In Saeedi's study, the amount of physical activity at work was more than the amount of physical activity in free time. This difference can also be justified in terms of differences in terms of age, gender and occupation of participants used in this study. The findings of the present study is consistent with Jallilian et al.,'s study which showed that over 65% of working women did not have enough physical activity, 25.7% had irregular exercise and 8.7% had regular exercise; and also is consistent with Danyali et al., study which showed that 71.6 % of participants had a less active life style and only 28.4% had an active life style.

Since most of the activities of teachers are done while they are standing and standing is considered as a light physical activity (Motefaker and Sadrbafghi, 2007), it does not provide enough movements for needed for health. Moreover, excessive working hours and responsibilities for family and children prevent having physical activities in women. Investigations show that most of the managers are not willing to exercise. Moreover, a variety of responsibilities at home and at work and cultural and social structure of society has created lots of limitations for women to engage in physical activities.

Furthermore, findings show that lack of financial support of women's physical activities is one of the impeding factors from having physical activities. Therefore, improving physical activities at work by providing a supportive atmosphere can be helpful. Creating a supportive network of colleagues and friends, having group discussions, taking teachers' solutions and planning educational programs at work can be regarded as a good solution to improve physical activity level at work. In order to improve physical activities in the society, investments on the physical activity and engagement of policy makers in such investments can be helpful both in the individual and social levels.

Having physical activity and creating a supportive social network should be one of the preferences in all the organizations. Moreover, equipping and increasing foundations of physical activities such as gyms or recreational centers and being supported by friends, family and authorities can be also very beneficial in improving and increasing physical activity in the society.

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Limitations of the Study

This study was carried out on female teachers teaching in different schools of Jolfa in East Azerbaijan and may not be generalizable to other cities or provinces of Iran or to other groups of women such as housewives. Furthermore, the participants in this study were between 25-53 and had higher education and therefore, the findings may not be generalizable to other age groups or to women with lower education. *Conclusion*

Regarding the fact many teachers did not have the recommended level of physical activity for health, encouraging them to engage more in physical activities and to create a social supportive network seems to be vital and necessary. Finally, more studies are required to be carried out on teachers and employees of other units and organizations in order to investigate their physical activity level to prevent chronic diseases.

ACKNOWLEDGMENTS

Hereby, we appreciate vice chancellor for research in theUniversity Of Medical Sciences of Tabriz, authorities of Department of Education in Jolfa, school principals and all teachers who participated in this study.

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