

The relationship self-efficacy and some of demographic characteristics with leisure time physical activities of Iranian workers

Mahdieh IROM, Ali ZAREI, Farshad TOJARI

*Department of Physical Education and Sport Sciences, Central Branch, Islamic Azad University, Tehran, Iran.
Address Correspondence to M. Irom, e-mail: irommahdieh@yahoo.com*

Abstract

In this research what we aim to study as LTPA , means activities such as exercise, sport, leisure activities or hobbies which are not related to regular activities job duties, housework and daily commuting , were examined within a week. This study is a survey with sample population of 384 workers from 15 provinces, including 102 females and 282 males who were classified in five age categories, assessing their health status, 30.4 percent of them in fair health, respectively. Data collection were conducted through a demographic questionnaire, participation in leisure-time physical activity and self-efficacy. In order to describe the data, descriptive statistics, chi-square test, Phi correlation and Univariate and multivariate regression analysis was applied ($P < 0.05$). The findings of the study shows that there is a significant and meaningful association between age, gender, leisure time physical activity. Also gender was significantly associated with self-efficacy but age were not significant .The relationship between self-efficacy and external barriers with leisure time physical activity were significant but there was not significant relationship between internal barriers of self-efficacy and leisure time physical activity .The results showed that the less participating of woman in leisure-time physical activity Despite its benefits in increasing health awareness, suggest their undesirable lifestyle in this area. Obviously, continuation of programs Sports, promoting exercise and practicing it in the workplace can be an effective step towards achieving the abovementioned goals.

Keywords: Age, gender, Iranian workers, leisure time physical activity, self-efficacy.

INTRODUCTION

Nowadays, sport and its extracurricular programs are considered crucial in order to create joyful moments, sense of peace, more relief and it's seen as solution of numerous physical and mental problems of individuals of the society. In various countries, governments constantly attempted to create dynamism, volubility, and greater participation in sport activities by planning and optimization of leisure time. Correct and regular sport training and exercises, as a significant part of each person's daily responsibilities, can be exceedingly effective in improving health, standards of living, society health, performing duties and responsibilities of the society which requires strong and vigorous body. Therefore those who got better physical fitness will be more successful. Sociologists believe that leisure is an experience in which an individual, free from everyday

tasks and mental preoccupation and along with his/her personal desires and tastes and voluntary participation, chooses so that his/her body, mind and personality grow and be nurtured (11).

Therefore, since the existence of the healthy people is of the essential requirements of the society, the society that concentrates on mental health of its members without skyrocketing health costs will rear healthy people, which this will guarantee the individual and social growth. Performing group activities and programs which are of those agents for the treatment of isolation and also a factor for progress of individual and social characters are considered as essential features of sport and Leisure time physical activity. In its theoretical definition, physical activity is a tool through which valuable cultural, individual and social attitudes, manners and values can reach other parts of life (7).

The benefits of engaging in regular PA(physical activity) in reducing the risk of many detrimental health outcomes have been sufficiently documented. Given higher rates of many health problems, such as diabetes, cardiovascular disease , hypertension and obesity workers may obtain more protective effects on reducing those rates by increasing regular PA. A number of demographic factors, such as age and gender, have been identified to relate to regular PA. Overall, the male gender and being younger may predict higher PA levels. The results indicated the relationship between gender and leisure time physical activity was significant and Women less than men in their daily leisure time physical activity engaged (20). Other research also showed that a significant positive relationship between demographic factors with LTPA (1,16,17).

Considered as one of the variables of Bandura's social cognitive theory, self-efficacy has significant role in increasing people's belief in their effectiveness and ability. Bandura defines self-efficacy as individual's belief of an ability to perform an action in specific time. When individual's function is coordinated with or goes beyond individual norms, it leads to preserving or increasing of the self-efficacy whereas, poor performance of individual norms will cause decrease in self-efficacy. Belief in self-efficacy will affect various dimensions of life including selection of the goals, decision making, degree of the effort, continuity and stability level and encountering challenging subjects (2,13,8,9). Referring to what Bandura discusses self-efficacy is the most crucial prerequisite for changing behavior.

Numbers of studies confirm the vital influence of self-efficacy in defining physical activity. Various types of self-efficacy were examined and tested for their functional use. Task self-efficacy and barrier self-efficacy are categorized as two types of functional and widespread self-efficacy (14,15).

Previous researches depict that Task self-efficacy primarily affects the individual willingness at the start of the practicing, while Barrier self-efficacy primarily influence individual adherence who has been involved in training and practicing in the long term (3,18). People's regular participation in physical

activity can prevent numerous obstacles which are classified as Real barriers and Perceived barriers. The real barriers refers to external factors such as family, job requirements, bad climate conditions and etc. whereas perceived barriers refers to internal factors like fatigue, anxiety, obsession and etc.

Majority of researchers have reached to this point to conclude that self-efficacy is a pivotal factor for predicting regular physical activity. Although the majority of researchers have reached a consensus that self-efficacy is a robust predictor of PA or exercise, little is known about whether self-efficacy for overcoming barriers, elicited respectively from extrinsic and intrinsic factors, plays diverse roles in participation of LTPA. No study has been found which attempted to categorize different types of self-efficacy scales to differentiate extrinsic and intrinsic barriers. Instead, many researchers combined items reflecting extrinsic and intrinsic barriers into one scale to assess self-efficacy (10).

According to the philosophy of better life, it depends on one's own if he/she aims to achieve healthy life. Gaining these crucial objectives require proper nutrition, regular appropriate training, sufficient rest and recreation, treatment and stress prevention, performing decent works and elimination of unsafe factors. People who follow correct method of life will taste the delights of life in the all-round welfare even in the workplace and those who stepped in vain will endanger their lives (12).

There are rapid changes in the life style of the people due to the development of urbanity, industrialization of the societies, increase in economical growth, and globalization of markets. Earlier than Industrial revolution labor and leisure were two related issues and no one could differentiate between them. With emergence of Industrial revolution and the aftermath of what follows the revolution for the societies, the foundation of economy and modes of production changed and new technologies were applied, which this fact caused life style transformation and also displacement of working hours (19).

This development and progress was so pervasive and far-reaching that covered up the entire social, economical and political aspects and as well as widely affecting the quality and quantity of leisure time of

people. Nowadays, in order to endow majority of workers life with leisure time, it is necessary to separate labour, which you rely on it to supply your needs, from other activities (10).

Despite numerous agencies and departments that assume taking responsibility of universalizing and wide spreading workers physical activity in their leisure time like Amateur Federation of Workers Sport, Ministry of Cooperative, Labor and Social Welfare, Ministry of Sport and Youth, municipalities, Ministry of Education, Ministry of Science, Research and Technology and etc., but regrettably we observe that the situation is not desirable for participants in recreational sports rather than other countries.

There has not been done a similar research in Iran and this study is exceptional in its kind, though several studies done concerning the relation between self-efficacy and other variables in various statistical populations; the analysis of the relationship between self-efficacy and participation in physical activity of the high school students of the Tehran province. The findings of the abovementioned research depicted that there are no significant and meaningful relation between physical activity and self-efficacy of the students and also between self-efficacy and motivation in participating in sport activity (12). Moreover, in investigating the relation between benefits, barriers and self-efficacy and sport and physical activity stages of changes of employees of Abu Musa Island, the researchers concluded that there's a significant relation between the scores of perceived benefits and barriers and self-efficacy with regular physical activity (19). The data of another research, which surveyed the connection between self-efficacy and physical activity stages of changes of women households, depicted that there is a meaningful relation between self-efficacy and stages of change and self-efficacy and education level, but no meaningful relation between self-efficacy and age. In accordance with this study, it can be stated that self-efficacy has got considerable impact on physical activity conflict (5).

There's one more research which assessed the relationship between perceived environment, social support and self-efficacy with participation in leisure time physical activity of the students of the Islamic Azad University, Science and Research Branch,

Tehran, which depicted that there is a positive and significant connection between self-efficacy and participation in physical activity of the students. Moreover, perceived environment, social support, and self-efficacy had the ability to predict participation in physical activity (1). In foreign researches done we can point out a study which made a comparison between the relationship of different kinds of self-efficacy and physical activity of the youths. What researchers concluded was that environmental changes is a vital factor in creating connection with various kinds of self-efficacy and physical activity of the youth (4).

Furthermore, in a survey which was conducted on the African-Americans, the researcher reached a result that depicted that gender has a meaningful connection with LTPA, but no meaningful connection between age and LTPA. Other noteworthy point is that in self-efficacy scale, the researcher also concluded that if people manage their time, there the possibility in which high level of self-efficacy leads to regular physical activity (6).

MATERIAL & METHOD

In terms of the purpose; this is an applied research with pragmatic goals, in terms of the time of the data collection; the study assessed the present era, and in terms of the method of data collection it's a survey. The current research used descriptive statistical method to describe the data and uses univariate and multiple regression, Chi-Squared Test and Phi Correlation to examine the hypothesis of the research and to determine the connection between the variables of the research. In order to analyze the data SPSS software were also utilized.

Statistical Population

Statistical population is Iranian workers.

Research Sample: research samples were categorized randomly and selected according to Morgan's table (384 samples).

500 questionnaires were distributed in 5 regions of the country (North- South- East- West-Center) and in 15 provinces which finally 384 acceptable questionnaires were analyzed.

Research tool

Research tools including demographic questionnaire, participation in LTPA and self-efficacy (Kaigang Li, 2010). This questionnaire was made in 2010 by Kai Gang Lee in United States of America. Validity and reliability of this questionnaire also endorsed by professors of sport management in Iran and it has got adequate reliability. Its Cronbach's Alpha Coefficient is 0/83.

RESULTS

According to table (1) which is depicted below, the numbers of the workers were 384; 102 women and 282 men, which classified in 5 age categories. The majority of the cases tested were in age category 35-44 (43/3 percent), with part time job status (29/1 percent) and 30/4 percent were in good health status during the research.

According to the data of the table (2) and emphasizing this fact that there is a slight difference between mode, median and mean and while the Skewness and Kurtosis coefficient is below 0.7, it can be discussed that following distribution hold

normality assumption and we can utilize mean as a central tendency indicator. Concerning the connection between gender and Leisure Time Physical Activity (LTPS) of the workers, according to Pearson's Chi-Square test statistics and Phi ($df=3$, $sig= 0.008$, $\phi= 0.176$, $\chi^2= 11.955$), moreover, concerning the connection between age and LTPA of the workers, along with Pearson's Chi-Square test statistics and Phi ($df=12$, $sig= 0.001$, $\phi= 0.608$, $\chi^2= 143.022$), it can be stated that this connection is meaningful.

Table 1. Characteristics of Iranian workers.

		N	percent
Gender	Male	282	73.7
	Female	102	26.3
Age	18-24	30	7
	25-34	90	23.2
	35-44	168	43.3
	45-54	55	11.9
	55-64	40	10.3
LTPA(minutes per week)	65+	1	0.3
	None	52	10.4
	<150 mins/week	66	17
	150-299 mins/week	154	40.5
	≥ 300 mins/week	109	28.1

Table 2 . Descriptive Statistics for " Self-efficacy "and its compon.

	Central tendency			Dispersion Index			Distribution Index		
	Distributio n Index	Dispersion Index	Central tendency	Distributio n Index	Dispersion Index	Central tendency	Distributio n Index	Dispersion Index	Central tendency
Self-efficacy	11.51	11.11	11.74	30	50.05	7.074	0.359	0.156	0.247
Intrinsic barriers	33	33	32.54	46	100.04	10.002	0.508	0.147	-0.536
Extrinsic barriers	20.13	21.21	20.79	31	42.786	6.541	0.332	-0.212	-0.260

Table 3. Cross table of relationship between "gender", "age" with LTPA.

Gender	LTPA				Total
	None	<150	150-299	≥ 300	
Male	44	56	107	75	282
Female	8	10	50	34	102
Total	52	66	157	109	384
Age					
18-24	8	14	5	4	31
25-34	23	22	18	27	90
35-44	16	17	87	48	168
45-54	5	13	7	30	55
55-64	0	0	40	0	40
Total	52	66	157	109	384

According to the provided information in intersecting table (table 3) it can be stated that men LTPA level in the age range 35-44 years is considerably more. Moreover, based on Phi test statistics it can be noted that gender has significant relation with self-efficacy (sig=0.001, phi=0.017), but there is not meaningful relation between age and self-efficacy (sig=0.114, phi=0.017).

In table 4, there is a summary of univariate regression model of the relation between self-efficacy and its components with leisure time physical activity (LTPA), and according to univariate and multiple regression coefficient and also regression coefficient obtained in table (5), it can be concluded that there is a meaningful causal relation between self-efficacy and LTPA and also external barriers and LTPA ($p < 0.05$), But no meaningful connection between internal barriers and LTPA ($p > 0.05$).

Table 4. Univariate and multivariate regression coefficient of self-efficacy and its components.

		B	β	t	p
LTPA	Intrinsic barriers	0.012	0.083	1.637	0.103
	Extrinsic barriers	0.016	0.103	2.027	0.043
	Self-efficacy	0.017	0.136	2.689	0.007

DISCUSSION

Labor and employment are among the most important factors of human's life which if compliance with his/her conditions and interests will bring desirable effects for the individual and society. In another words, improving the quality and life style of individuals, higher self-efficacy will increase people's participation in LTPA. The aim of the current study is to assess the relation between age, gender, self-efficacy and its dimensions (internal-external barriers) and LTPA of the workers of Iran.

Findings proves that there is a meaningful relation between gender and leisure time physical activity of the workers, and leisure time physical activity of the men is significantly more than women. Moreover, the connection between gender and self-efficacy is also significant. This meaningful connection could be traced between age and LTPA of the workers and physical activity in the age range 35-44, which was more in comparison to other age ranges, but no

relation between age and self-efficacy. The results of the current study are consistent with previous research (6,17,20,16,1).

Personal belief of an ability to perform an action at specific situation indicates person's self-efficacy. According to Bandura, individuals who have strong sense of self-efficacy see the challenging issues as problems that must be conquered, have more commitments toward their interest and activities and demonstrated deeper interest in activities they participate in and those who have less self-efficacy avoid challenging issues. They believe that difficult tasks and situations are beyond their ability and competence. They focus on their personal failings and negative consequences. Individuals with less self-efficacy lose their confidence in their personal abilities and capacities (2).

In fact self-efficacy refers to the concept that how people judge their competences and abilities in successfully resolving the problems and challenges and their expectation.

Self-efficacy is within a broader theoretical framework which was created by Bandura's social cognitive theory, whereupon individuals are both a product of his/her environment and creator of it. In addition to environment, this concept can also be applied to the people's character and performance. Therefore, considering the importance of this issue, the current study aims to assess the relation between self-efficacy and its dimensions (internal and external barrier) and LTPA of the workers which the findings depicts that self-efficacy and its external barriers have significant impact on workers participation in LTPA, but this relation can be depicted between self-efficacy internal barriers and LTPA of workers. In other words, the existence of factors like anxiety, fatigue, mental conflicts, cannot be obstacles against participation of the people in leisure time physical activity. The results of the current study are consistent with previous research (1,4,5,6,19), and because of the difference in tested cases are inconstant with research (12).

Although people with a high sense of efficacy may more easily accomplish a behavior change the current findings indicate that great will and ability to perform LTPA (e.g., high level self-efficacy) alone may not help people to engage in regular PA. Only if

people obtain high-level self-efficacy may ultimately lead to regular PA.

As mentioned a number of demographic factors, such as age and gender, have been identified to relate to regular PA. Overall, the male gender and being younger may predict higher PA levels.

The results of the current study indicate that the less participation of the women in leisure time physical activity despite awareness of its benefits suggests their undesirable lifestyle in this area. Therefore, it's hoped that further studies regarding the causes of this issue, removing barriers and creating optimal conditions and facilities for more engagement in performing physical activity at the workplace and improving psychological factors are done in order to increase LTPA of the women and improve the health of women workers who have an important role in family and society health.

REFERENCES

1. Aghakhanbabayi M, Mozaffari A, Poorsoltani H. Relationship between perceived physical environment, social support and self-efficacy with leisure time physical activities among students of Tehran Azad University. PhD Thesis, 2015.
2. Bandura A. Health promotion by social cognitive means. *Health Education and Behavior*, 2004; 43(2): 143-164.
3. Garcia, Bengoechea Enrique, Ruiz Juan Francisco, Louise Bush Paula. Delving into the social ecology of leisure-time physical activity among adolescents from South Eastern Spain. *Journal of Physical Activity and Health*, 2013; 52: 1136-1144.
4. Gregory JR, Dziewaltowski DA. Comparing the relationships between different types of self-efficacy and physical activity in youth. Department of Kinesiology and Research and Extension Office of Community Health, Kansas State University, Manhattan. *Journal Citation*, 2016; (56): 532-648.
5. Hashemizadeh Z, Rakhshani F, Keykhaei R, Zarian I. The relationship between self-efficacy and physical activity stages Housewives. *Journal of Research & Health*, 2010; 1(12): 363-369.
6. Kaigang L. An explicative model of leisure-time physical activities among church-going African Americans in Indianapolis. Thesis of Doctoral, Department of Applied Health Science, School of Health, Physical Education and Recreation Indiana University, 2010.
7. LAntony. Beyond the boundaries of physical education. Tehran, Bamdadketab, 2011.
8. McAuley E, Blissmer B. Self-efficacy determinants and consequences of physical activity. *Exercise and Sport Sciences Reviews*, 2000; 44(2): 85-88.
9. McAuley E, Mihalko SL, Bane SM. Exercise and self-esteem in middle-aged adults: multidimensional relationships and physical fitness and self-efficacy influences. *J Behav Med*, 1997; 20(1): 67-83.
10. Mihovilovic AM. Leisure and Tourism in Europe. *International Social Science Journal*, 2013; 64: 72- 111.
11. Mohamadi S, Maleki M. The relationship between self-efficacy and BMI motivated boys and girls sports athletes. *Sports Management Studies Institute of Physical Education*, 2015; (12): 78-90.
12. Nematzadeh M, Sajadihazaveh H. Examine the relationship between self-efficacy and motivation and participation in physical activity among high school students. Master's thesis. Islamic Azad University Central Tehran Branch, College Physical Education And Sport Sciences, 2014.
13. Rodgers WM, Hall CR, Blanchard CM, McAuley E, Munroe K. Task and scheduling self-efficacy as predictors of exercise behavior. *Health Psychology*, 2002; 21(5): 405-416.
14. Rodgers WM, Gauvin I. Heterogeneity of incentives for physical activity and self-efficacy in highly active and moderately active women exercises. *Journal of Applied Social Psychology*, 2011; 46(4): 1016-1029.
15. Rodgers WM, Sullivan MJL. Task, coping, and scheduling self-efficacy in relation to frequency of physical activity. *Journal of Applied Social Psychology*, 2013; 46(3): 741-753.
16. Robabi H, Eghbali K, Zareban I, Karimy M, Mirhaghi A, Sanainasab H. An Assessment of Physical Activity Levels among Bank Employees in Iranshahar in 2011. *Journal of Torbat Heydariyeh University of Medical Sciences (Persian)*, 2013; 1(2): 55-62.
17. Robabi H, Eghbali K, Zareban I, Karimi M, Mirhaghi A. Determining the physical activity of employees working in Iranshahar banks. *Journal of Medical Sciences Torbat*, 2013; (2): 55-62.
18. Razavi P, Pesarkaloo A. Leisure time and sports activities with an emphasis on women working. *Amol Journal of Management and Exercise Physiology*, 2013; (1): 23-38.
19. Salmon J, Owen N, Crawford D, Bauman A, Sallies JF. Physical activity and sedentary behavior: A population-based study of barriers, enjoyment, and preference. *Health Psychology*, 2003; 21(5): 178-188.
20. Zare F, Aghamolayi T, Ghanbarneghad A, Hagializadeh K. The relationship between the benefits and barriers to exercise self-efficacy and physical activity stages of change in personnel Abu Musa island. *Journal of Preventive Medicine*, 2015; (3): 38-31.
21. Zebardast M, Ghahramantabrizi K. Relationship between level of leisure time physical activity based on some variables related to spinal cord injured patients in Iran. *Journal of Sport Management Research and Science*, 2013; (5): 45-57.