

Relation between Self-efficacy and Physical Activity Level among Bushehr Islamic Azad University employees

Mehdi Koraei¹

¹ MA Student, Department Psychology, Arsanjan Branch, Islamic Azad University, Arsanjan, Fars, Iran

Abstract: The purpose of present study was investigating the relationship between self-efficacy and body activity level among Bushehr Islamic Azad University employees. This research was descriptive-survey and applied. Statistical population included all of Bushehr Islamic Azad University employees in 2015-2016. The sample size was determined 327 people. Measurement tools were General self-efficacy (GSE) and Bone-specific Physical Activity Questionnaire (BPAQ) questionnaire. SPSS software version 18 and descriptive statistics indexes such as frequency, percentage, minimum and maximum average of score, standard deviation, Pearson correlation coefficient, one sample t-test was used. Findings show that the level of self-efficacy of Bushehr Islamic Azad University employees has significance difference with average level, but the body activity doesn't have significance difference with average level. Other results showed a significance relationship between self-efficacy and employee's body activity.

[Mehdi Koraei. **Relation between Self-efficacy and Physical Activity Level among Bushehr Islamic Azad University employees.** *Stem Cell* 2016;7(3):57-60]. ISSN: 1945-4570 (print); ISSN: 1945-4732 (online). <http://www.sciencepub.net/stem>. 10. doi:10.7537/marssci070316.10.

Keywords: Self-efficacy, Body activity levels, Bushehr Islamic Azad University

Introduction

Physical activity is defined as “*any bodily movement produced by skeletal muscles that result in energy expenditure*” (Shephard and Balady, 1999). As such, physical activity may include a range of activities, like walking, cycling, all types of physical exercise, sport activities (e.g. soccer or tennis), gardening and snow shoveling. Two closely related terms are exercise and fitness, which deserves a short explanation in order to clarify their distinction from physical activity. Exercise is a subcategory of physical activity, but is more planned, structured and repetitive and is aimed at improving or maintaining elements of physical fitness (Shephard and Balady, 1999).

Physical fitness composes attributes people have or achieve that relates to the ability to perform physical activity, and these attributes include muscle strength, body composition, cardiorespiratory fitness and flexibility (Balady et al. 2000). It appears to be a dose-response relationship regarding the health benefits from physical activity, with no specific lower threshold (Balady et al. 2000). In short, this means that some activity is better than no activity at all and when the amount of physical activity increases, until reaching an extreme level, the health benefits increases accordingly.

The general beneficial effects from regularly physical activity on people's health is well documented. Physical activity is associated with reduced risk of premature mortality, cardiovascular disease, type 2 diabetes, hypertension, obesity and certain types of cancer (Kokkinos, 2012). Moreover, high impact weight bearing activities and dynamic

activities of short duration (e.g. jumping) may also enhance bone strength among adolescents (Janssen and Leblanc, 2010). This has also shown to be a preventive factor for bone fractures among adults (Morseth, 2011). Using data from two large British birth cohorts Sacker found that physical activity in adolescence reduced the odds of psychological distress in adulthood (Sacker and Cable, 2006). In addition, physical activity has been associated with reduced risk of depression (Biddle and Asare, 2011) and increased self-perception and self-efficacy among adolescents (Bremnes et al. 2011). On the other hand, physical inactivity is globally recognized as the fifth leading risk factor for mortality (Humphreys et al. 2013), and is suggested to be contributing to health complaints during childhood and into adulthood (Kjelvik, 2012).

Several studies using self-rated health as the dependent variable have been able to demonstrate physical activity as one of many important predictors of self-rated health in adults (Norman et al. 2002). Other studies among adults have aimed specifically to investigate the relationship between physical activity and perceived health, and most have found that higher level of physical activity is significantly associated with better ratings of health status (Galan et al. 2010). Any organization considering the contribution of her work in promoting social goals has a special importance in the community. And so if we can move toward health promotion staff can see increased employee productivity and efficiency of the organization. The main objective of this paper was to examine the association between physical activity and

self-efficiency among Bushehr Islamic Azad University employees.

Methodology

The present research was descriptive and would be classified as relationship method. 323 employees of Bushehr Islamic Azad University were selected using multi-stage cluster sampling. Data collection was conducted through a questionnaire.

Instruments

General self-efficacy (GSE): The SGSES (Sherer et al., 1982) is a Likert format 17-item scale (example of items include: "When I make plans, I am certain I can make them work", "I give up easily", "I am a self-reliant person", "I avoid facing difficulties"). The response format is a 5-point scale (1 = strongly disagree, 5 = strongly agree). Sum of item scores reflects general self-efficacy. The higher the total score is, the more self-efficacious the respondent. Sherer et al. developed the GSE scale to measure "a general set of expectations that the individual carries into new situations" (p. 664). The SGSES has been the most widely used GSE measure. The SGSES was primarily developed for clinical and personality research. Later it has also been used in organizational settings. Reviewing various organizational studies, Chen et al. (2001) found internal consistency reliabilities of SGSES to be moderate to high ($\alpha=.76$ to $.89$). In two of their studies using samples of university students and managers, Chen et al. reported high internal consistency reliability for SGSES ($\alpha=.88$ to $.91$ respectively). With regard to temporal stability of SGSES, Chen & Gully (as cited in Chen, et al.) obtained a low test-retest estimate ($r=.23$) across only 3 weeks. However, Chen et al found high test-retest reliability ($r=.74$ and $.90$).

Several studies have questioned the unidimensionality of SGSES. For example, Woodruff and Cashman (1993) found that SGSES items measure three distinct empirical factors reflecting self-perception of behaviour initiation, effort, and persistence. Investigations also have reported three-factor structure of SGSES (e.g., Bosscher and Smit, 1998; Chen et al. 2001).

Bone-specific Physical Activity Questionnaire (BPAQ): was administered to the participants to record type, frequency and years of current and historical physical activity involvement (Weeks & Beck, 2008). Independent sections for past (from one year of age) and current (previous 12 months) regular activity facilitate examination of the temporal and age-specific effects of mechanical loading on the skeleton. Scoring is based on an algorithm which takes into account the osteogenic index principle described by Turner and Robling and ground reaction forces (GRF) (Turner & Robling, 2003).

Data analysis

For data analysis, we used descriptive analysis, Pearson correlation test with SPSS software, version 18.

Results

Gender characteristics, age distribution, marital status and education level of employees showed in tables 1, 2, 3 and 4, respectively. 55.4% of participants was male and 44.6% was female employees (Table 1), 41.1% of participants has 31-40 years and only 2.2% has higher than 50 years old (Table 2), 81.4% married and 17.3% was single employees (Table 3), higher than 51% of participants has bachelor's degree and other education levels distributed between under diploma to masters and higher (Table 4).

Table 1: Gender characteristics of participants

Gender	Frequency	Percent of frequency
Male	179	55.4
Female	144	44.6
Total	323	100

Table 2: Age characteristics of participants

Gender	Frequency	Percent of frequency
<30	84	26
31-40	133	41.2
41-50	86	26.6
>50	7	2.2
No answer	13	4
Total	323	100

Table 3: Marital status of participants

Marital status	N	%
Single	56	17.3
Married	263	81.4
No answer	4	1.2
Total	323	100

Table 4: Education level of participants

Education level	N	%
Under diploma	8	2.5
Diploma	51	15.8
Associate degree	61	18.9
Bachelor's degree	165	51.1
Masters and higher	37	11.5
No answer	1	0.3
Total	323	100

Results showed that mean score of self-efficacy, work, exercise, leisure and physical activity among Yasouj Medical Science University employees are 38.9, 2.65, 2.36, 2.33 and 7.35, respectively (Tables 5 and 6).

Statistical analysis with one sample t-test showed that social performance among employees has significance difference and acquired mean score has significance difference with assumed mean score (Table 7), while other comparisons showed that mean score of physical activity among employees has not significance difference with assumed mean score (Table 8).

Pearson correlation test not showed significance relationship between social performance and physical activity in Yasouj Medical Science University employees. These findings showed that physical activity can predicted only 1% of social performance in Yasouj Medical Science University employees (Table 9).

Table 5: Descriptive analysis of social performance scores in employees

Variable	Min	Max	Mean	SD
self-efficacy	21	46	38.9	6.9

Table 6: Descriptive analysis of physical activity and its subscales scores in employees

Subscale	Mean	SD
Work	2.65	0.48
Exercise	2.36	0.68
Leisure	2.33	0.51
Physical activity (Total)	7.35	1.2

Table 7: One sample t-test analyze of social performance scores for participants

Variable	N	Mean	SD	Assumed mean	t	df	Sig
self-efficacy	323	38.9	6.9	33.5	14.21	322	0.000

Table 8: One sample t-test analyze of physical activity scores for participants

Variable	N	Mean	SD	Assumed mean	t	df	Sig
Physical activity	323	7.35	1.2	7.3	-0.56	322	0.56

Table 9: Pearson correlation between Social performance-Physical activity in employees

Test	Self-efficacy-Physical activity
Pearson correlation	0.207
Sig	0.011
N	323

Discussion

Our findings not showed significance relationship between self-efficacy and physical activity in Bushehr Islamic Azad University employees. These findings showed that physical activity can predict the self-efficacy in Bushehr Islamic Azad University employees. Researchers believe that physical exercise and sport led to mirthfulness and increase all the personal and social health indicators. In this context, the role of exercise in improving the health of all people in general and employees in particular is striking. Consistently exercise of personnel an organization can reduce stress and anxiety, increase productivity, and improve staff commitment to organizational health. Several studies using self-rated health as the dependent variable have been able to demonstrate physical activity as one of many important predictors of self-rated health in adults (Norman et al. 2002). Other studies among adults have aimed specifically to investigate the relationship between physical activity and perceived health, and most have found that higher level of physical activity is significantly associated with better ratings of health status (Parkatti et al.

1998). On this basis, and considering the findings obtained from this study, it is emphasized that any organization for growth and success requires several factors, that the efficacy of the health, social and physical activity are important and influential factors are considered. Self-efficacy with physical activity being performed appropriate areas for better and provides related services, so that all employees with all their power to try to organizational success. So trying to improve each of these components, particularly the improved variables in this study seems necessary to increase organizational efficiency.

References

- Balady GJ, Berra KA, Golding LA, et al. *ACMS's Guidelines for exercise testing and prescription*. Sixth ed. USA: Lippincott Williams & Wilkins; 2000.
- Biddle SJ, Asare M. Physical activity and mental health in children and adolescents: a review of reviews. *Br J Sports Med*. Sep 2011;45(11):886-895.
- Bremnes AJ, Martinussen M, Laholt H, Bania EV, Kvernmo S. Positiv sammenheng mellom psykisk helse og fysisk aktivitet blant ungdom i videregående skole. *Tidsskrift for Norsk psykologiforening*. 2011;48:332-338.
- Galan I, Meseguer CM, Herruzo R, Rodriguez-Artalejo F. Self-rated health according to amount, intensity and duration of leisure time physical activity. *Prev Med*. Nov 2010;51(5):378-383.

5. Humphreys BR, McLeod L, Ruseski JE. Physical activity and health outcomes: Evidence from Canada. *Health Econ*. Jan 31 2013.
6. Janssen I, Leblanc AG. Systematic review of the health benefits of physical activity and fitness in school-aged children and youth. *Int J Behav Nutr Phys Act*. 2010;7:40.
7. Kjelvik J. *Barn og unges miljø og helse. Utvalgte indikatorer om barn og unges fysiske og sosiale miljøfaktorer*. Oslo 2012.
8. Kokkinos P. Physical activity, health benefits, and mortality risk. *ISRN Cardiol*. 2012;2012:718789.
9. Morseth B. *Physical activity, osteoporosis, and fracture risk. Long-term associations in a general population* [Dissertation for the degree of Philosophiae Doctor]. Tromsø, Norway: Faculty of Health Sciences, University of Tromsø; 2011.
10. Norman AB, R.; Vaida, F.; Wolk, A. Total physical activity in relation to age, body mass, health and other factors in a cohort of Swedish men. *International Journal of Obesity and Related Metabolic Disorders*. 2002;26(5):670-675.
11. Parkatti T, Deeg DJH, Bosscher RJ, Launer LLJ. Physical Activity and Self-Rated Health among 55- to 89-Year-Old Dutch People. *Journal of Aging and Health*. 1998;10(3):311-326.
12. Sacker A, Cable N. Do adolescent leisure-time physical activities foster health and well-being in adulthood? Evidence from two British birth cohorts. *Eur J Public Health*. Jun 2006;16(3):332-336.
13. Shephard RJ, Balady GJ. Exercise as Cardiovascular Therapy. *Circulation*. 1999;99(7):963-972.
14. Shephard, R J. MD, DPE. 1992. Do Work-site Exercise and Health Programs Work.
15. Turner, CH and Robling, AG (2003) Designing exercise regimens to increase bone strength. *Exerc Sport Sci Rev* 31:45-50.
16. Weeks, B.K. and B.R. Beck, The BPAQ: a bone-specific physical activity assessment instrument. *Osteoporos Int*, 2008. 19(11): p. 1567-77.
17. World Health Organization. 2002. Mental health: New understanding, new hope. The world health report. Geneva, world health organization.

9/25/2016