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Occupational Exercise, Leisure Time Exercise and Health: A Comparative Study

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Abstract

It's no coincidence that four of the six letters in health is 'HEAL', and exercise plays a crucial role to heal the body and mind. Physical activity is any bodily movement that markedly increases energy expenditure. Physical exercise can be done in different context, for example, occupational exercise and leisure time exercise. Occupational exercise constitutes work related tasks such as lifting, walking and standing. Leisure time exercise includes constitutes exercise that one prefers to do outside the work setting that increases energy expenditure. Present study was conducted to examine the effect of occupational exercise and leisure time exercise on health. For this purpose, a sample of 120 adults (60 occupational exercisers and 60 leisure time exercisers) with equal number of male and female was selected on the basis of availability. PGI Health questionnaire N-1 was administered uniformly. Data were analysed by ANOVA. The results show positive and significant impact of leisure time exercise on health.

Keywords: *Health, occupational exercise and leisure time exercise.*

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Throughout the world, human health is changing due to some powerful forces such as dietary pattern, unhealthy life style, occupational stress and rapid urbanization. These shifts adversely affect the health. Therefore, non-communicable diseases such as cardiovascular disease, cancer, diabetes, and chronic lung cancer are increasing and the disease are leading cause of increased mortality rate (World Health Organization, 2013; Rajesh et.al. 2016). It was estimated that insufficient physical activity is the prominent risk factor for chronic disease, 3.2 million deaths and 32.1 million disability adjusted life in each year (WHO, 2011). Physically inactive people are 20-30 per cent more prone to develop chronic disease and high risk for mortality rather than those people who are involved only 30 minutes of moderate intensity physical activity most of the days of a week (Fogelholm et al. 2005, Haskell et al. 2007, Physical Activity Guidelines Advisory Committee 2008). To maintain healthy weight 60 minutes brisk walking or corresponding physical activity is needed (Goldberg and King,). So, it's no coincidence that four of the six letters in health is 'HEAL', and exercise is a prominent factor to keep us healthy. So in order to enjoy the glow of good health, exercise is must. Activity requiring physical effort, carried out to sustain or improve health and fitness. Exercise is an activity carried out for a specific purpose. Physical exercise reduce risk factor of physical as well as mental disease (Lahti, 2011). The World health Organization (WHO) estimates that physical inactivity is the fourth leading risk factor for global mortality. It is true that physical exercise is positively associated with the health. But type and intensity of physical exercise have varying effect on health. Generally, people think that physical activity improves health doesn't matter, people who engaged in manual work and those

who work in settings where physical work is involved better that they do not require further exercise to keep themselves healthy. Because of this they even do not do exercise and then they may deprive themselves of the benefits of exercise. But Clays et al., (2012) conducted a study and finding suggests that occupational exercise is positively associated with high blood pressure at work, at home, day time and during sleep time, in contrast that It is this, the researcher planned this study to compare the effect of occupational physical activity or leisure time physical activity on heath. Occupational exercise is operationalized as exercise due to the physical activity involved in working at the work. While leisure time exercise is operationalized as intentional exercise carried out to keep themselves healthy. It was hypothesized that leisure time exercise would be more beneficial for health than the occupational exercise. Further this will have variable effect on males and females and significant interactive effect was also hypothesized.

Design

A 2×2 factorial design was used to achieve the objectives of the study. There were two independent variable exercise and sex and both have two levels. The dependent variable was health.

Sample

A purposive sample of 120 subjects (60 occupational exercisers and 60 leisure time exerciser), between the age group of 20-45 years including the equal number of males and females. The sample was selected from a normal population from Rohtak, Sonipat and Panipat districts of Haryana.

Tools

P.G.I. Health Questionnaire N-1: Heath was assessed with PGI heath questionnaire N-1 by Wig, Verma and Parshad, (1971). It contains 38 items that measure psychological and physical distress. High score indicates high distress and poor health, low score indicates low distress and better health. It is a widely used measure with high reliability and validity.

Exercise

To measure the level of exercise a small structured interview was conducted. On the bases of this interview, exercise was categorized into two category which was (leisure time exercise & occupational exercise). Respondents those who were doing exercise in their free time or without any work pressure put into leisure time exercise group and those respondents were taken their work as an exercise put them into occupational exercise group.

Procedure

The study was conducted on the normal population with sample of 120 adults (occupational exercisers and leisure time exercisers) in which equal number of male and female included. The health questionnaire to people those are indulging in different occupation like labor, hackers, teachers, constructors and doctors etc. Data was collected from Rohtak, Sonipat and Panipat districts of Haryana. Each participant was contacted separately and confidentiality of them has assured. Test was uniformly administered to all the participants.

Results and Discussion

The objective of the study was to examine the main effect of sex and exercise and their interactive effect on health. The obtained data were analyzed using 2x2 analysis of variance and the results are given in table 1 and 2. The result reveals that the main effect of exercise was found to be significant ($F=81.77$, $df=116/1$, $p<.01$).

Table:-1 shows means and standard deviation of male and female OCE and LTE on health

	Male		Female		Total	
	Mean	SD	Mean	SD	Mean	SD
Occupational exercise	8.36	2.87	9.10	2.83	8.73	2.85
Leisure time exercise	4.73	1.70	4.33	2.63	4.51	2.20
Total	6.53	2.98	6.71	3.62	6.62	3.30

Results(Table 1) indicates that the occupational exercise group score 8.73 (SD=2.85) whereas leisure time exercise group mean score 4.51 (SD=2.20), high score indicate high distress and thus occupational exercise group was found to have more distress than the leisure time exercise group. Thus the leisure time exercise group had significantly better health than the occupational exercise group. The main effect of sex and interactive effect of sex and exercise were not significant.

Table:-2 showing the summary table of two way ANOVA for health.

Source	Sum of square	df	Mean square	F	Sig.
Exercise	533.408	1	533.408	81.77	.000
Sex	1.008	1	1.008	.155	.695
Exercise*sex	9.075	1	9.075	1.391	.241
Error	756.633	116	6.523		
Total	6567.00	120			

Findings of the study have implications for the people who are engaged in work demanding physical activity. Leino-Arjas, Solovieva, Riihimäki, Kirjonen and Telama, (2004) concluded that exercise during midlife has favourable effect on physical functioning of later older life while strenuousness is associated with poor functioning of later older life. Some other studies concluded that occupational physical activity with low level of leisure time exercise impose adverse effects on health particularly on men (Holtermann, et. al. 2012). The Intentional physical exercise has been repeated to be beneficial for health and findings of the present study also support this.

Reference

Ohta, M., Mizoue, T., Mishima, N., & Ikeda, M. (2007). Effect of the physical activities in leisure time and commuting to work on mental health. Journal of occupational health, 49(1), 46-52.

Fogelholm, M., Paronen, O., & Miettinen, M. (2007). Physical activity–a possibility for welfare policy. The state and development of health-enhancing physical activity in Finland. Helsinki: Ministry of Social Affairs and Health, 127.

Goldberg, J. H., & King, A. C. (2007). Physical activity and weight management across the lifespan. Annu. Rev. Public Health, 28, 145-170.

World Health Organization. (2013). A global brief on hypertension: silent killer, global public health

crisis: World Health Day 2013.

Clays, E., De Bacquer, D., Van Herck, K., De Backer, G., Kittel, F., & Holtermann, A. (2012). Occupational and leisure time physical activity in contrasting relation to ambulatory blood pressure. BMC Public Health, 12(1), 1002.

Sofi, F, Capalbo, A, Cesari, F, Abbate, R, Gensini G.F.(2008) Physical activity during leisure time and primary prevention of coronary heart disease: an updated meta-analysis of cohort studies. Eur J Cardiovasc Prev Rehabil;15:247–57.

Gong, J, Campos, H, Fiecas, J.M., McGarvey. S.T., Goldberg R, Richardson C, et al.(2013) A case-control study of physical activity patterns and risk of non-fatal myocardial infarction. BMC Public Health 13:122, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3585466/, retrieved on 22-06-2018.

Lahti, J. (2011). Leisure-time physical activity, health related functioning and retirement: a prospective cohort study among middle-aged employees, https://helda.helsinki.fi/bitstream/handle/10138/27947/leisuret.pdf;sequence=1, retrieved on 23-06-2018.

Clays, E., De Bacquer, D., Van Herck, K., De Backer, G., Kittel, F., & Holtermann, A. (2012). Occupational and leisure time physical activity in contrasting relation to ambulatory blood pressure. BMC Public Health, 12(1), 1002, https://doi.org/10.1186/1471-2458-12-1002, retrieved on 22-06-2018.

Rathore, V., Singh, N., & Mahat, R. K. (2018). Risk Factors for Acute Myocardial Infarction: A Review, Eurasian Journal of Medical Investigation, doi: 10.14744/ejmi.2018.76486 Pages 1 - 7 , retrieved on 23-06-2018.

Leino-Arjas, P., Solovieva, S., Riihimäki, H., Kirjonen, J., & Telama, R. (2004). Leisure time physical activity and strenuousness of work as predictors of physical functioning: a 28 year follow up of a cohort of industrial employees. Occupational and environmental medicine, 61(12), 1032-1038.

Holtermann, A., Marott, J. L., Gyntelberg, F., Søgaard, K., Suadicani, P., Mortensen, O. S.,& Schnohr, P. (2012). Occupational and leisure time physical activity: risk of all-cause mortality and myocardial infarction in the Copenhagen City Heart Study. A prospective cohort study. BMJ open, 2012 Feb 13;2(1):e000556. doi: 10.1136/bmjopen-2011-000556. Print 2012, retrieved on 23-06-2018