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EFFECT OF PHYSICAL ACTIVITY ON HEALTH RELATED QUALITY OF LIFE IN RETIRED WOMEN IN IOC

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Abstract

The purpose of this study was to investigate the effect of physical activity on health related quality of life in retired women in IOC from karur. A total 160 retired volunteered women (78 active) and (82 sedentary) participated in this study. Data were collected by using the standard SF-36 questionnaire. Kolmogrov-Smironov test, Levene test, independent t- test is used for analyzing data. Results showed that, health related quality of life in the active group is significantly better than the sedentary group. Quality of life, physical health, mental health, social functioning in active women is better than the sedentary group, and the bodily pain is lower in active women. To have a better quality of life, physical activity including six hours a week low intensive exercise is suggested.

Key words: *Physical activity, Health related quality of life, Indian Oil Company (IOC)*

INTRODUCTION

Physical activity or exercise can improve your health and reduce the risk of developing several diseases like type 2 diabetes, cancer and cardiovascular disease. Physical activity and exercise can have immediate and long-term health benefits. Most importantly, regular activity can improve your quality of life.

Why is physical activity important

Regular physical activity can produce long term health benefits. People of all ages, shapes, sizes, and abilities can benefit from being physically active. The more physical activity you do, the greater the health benefits.

Being physically active can help you

- Increase your chances of living longer
- Feel better about yourself
- Decrease your chances of becoming depressed
- Sleep well at night
- Move around more easily
- Have stronger muscles and bones
- Stay at or get to a healthy weight
- Be with friends or meet new people
- Enjoy yourself and have fun

When you are *not* physically active, you are more likely to

- Get heart disease
- Get type 2 diabetes
- Have high blood pressure
- Have high blood cholesterol
- Have a stroke

Physical activity and nutrition work together for better health. Being active increases the amount of calories burned. As people age their metabolism slows, so maintaining energy balance requires moving more and eating less.

Some types of physical activity are especially beneficial

- *Aerobic activities* make you breathe harder and make your heart beat faster. Aerobic activities can be moderate or vigorous in their intensity. Vigorous activities take more effort than moderate ones. For **moderate activities**, you can talk while you do them, but you can't sing. For **vigorous activities**, you can only say a few words without stopping to catch your breath.
- *Muscle-strengthening activities* make your muscles stronger. These include activities like push-ups and lifting weights. It is important to work all the different parts of the body - your legs, hips, back, chest, stomach, shoulders, and arms.
- *Bone-strengthening activities* make your bones stronger. Bone strengthening activities, like jumping, are especially important for children and adolescents. These activities produce a force on the bones that promotes bone growth and strength.
- *Balance and stretching activities* enhance physical stability and flexibility, which reduces risk of injuries. Examples are gentle stretching, dancing, yoga, martial arts, and t'ai chi.

Regular physical activity [PA] lowers adult mortality, improves quality of life and is beneficial in chronic heart failure, obesity and diabetes. Several studies have shown that regular PA improves mental health, reduces depression and

can improve self-esteem, anxiety, resilience to stress and sleep pattern. The role of exercise training in patients with heart disease is rapidly being accepted. Walking remains the mainstay of exercise prescription for adult cardiac patients as part of home-based programs(1)Physical activity has a beneficial effect on HRQL in patients with depression, intermittent claudication, coronary disease, and
multiple organ dysfunctions. In 2001, a review concluded that physical activity, often in the form of endurance and/or resistance training exercise, was positively associated with HRQL, regardless of age, health and activity status, in aging populations the health benefits from physical activity are well-known (2). A recent report found that physical activity was associated with less bodily pain in a carefully selected group of sedentary older adults who had either high normal blood pressure or mild hypertension, but who were free of clinical manifestations of chronic diseases.

The lack of association between physical activity and the other domains of HRQL may have occurred due to the narrow range in physical activity level of this sedentary cohort. Thus, studying older adults who are physically active in addition to those who are sedentary may be necessary to delineate the association between physical activity and HRQL .Most conceptualizations of HRQL include physical, mental (including emotional dimensions), and social components (Revicki, 1989). HRQL encompasses the perceived, valued health attributes such as the sense of comfort or well-being, the ability to maintain good physical, emotional, and intellectual functions, and the ability to satisfactorily take part in social activities.(3) Health is defined as a state of complete physical, mental and social well-being and not only merely the absence of disease or infirmity.

Disease does not only affect individual, physically and emotionally, it may also affect his economic capacity, and his religious and political values, so the multidimensionality of the QoL concept has been accepted. The term "health related QOL (HR-QoL)" is used to measure the effects of numerous disorders, short and long term disabilities and diseases in different populations and could be defined as the patients' evaluation of the impact of a health condition and its treatment on daily life .(4) Long-term effects of physical exercise trial on QoL in older adults aged 66.7years are partly mediated by intermediate psychological outcomes (Elavsky et al., 2005)(5) An aerobic exercise program at the intensityof ventilator threshold 1 was found to improve QoL in seniors aged 60–75 years (Antunes et al., 2005)(6) In an elderly population, physical fitness has similarly been found to be associated with QoL (Chang et al., 2001)(7)

There is some evidence that QOL in older people is affected less by the changes in physical, mental or social health than that in younger people.(8)Successful aging encompasses multiple dimensions of health, including physical, functional, social, and psychological well-being. Maintaining a high level of quality of life into advanced age is a growing public health concern as the older adult population continues to increase .In fact, one of the primary goals of Healthy People 2010 is to improve both the quality and the number of years of healthy life Physical activity has a beneficial effect on HRQL inpatients with depression, intermittent claudication coronary disease, and multiple organ dysfunctions .In 2001, physical activity ,often in the form of endurance and/or resistance training exercise, was positively associated with HRQL, regardless of age, health and activity status.(9)Having regular physical activity can improve health related quality of life for people and it could be useful for mental health, reduce of stress and bodily pain specially in adults and elders. Quality of life is expressed in below basic items:physical ,mental ,social.(10) According the reports of WHO1, increasing regular physical activity in society, is useful for physical health ,mental health and reduce for expenditure in treats.(11) Physical activity can improve the mental problems in elders.(1970-2003)Quality of life and physical health in trained women is better than untrained.(Kolten ,K,F,2001) .Having physical fitness and physical activity is a subject to improve health related quality of life .(Luke 2006).

METHODOLOGY

Selection of subjects

A total of 160 subjects (retired volunteered women) between the ages of 50 and 75 years were recruited from advertisements around the IOC and form informing them by call. Prior to investigation, each subject completed a written informed consent. Women who were 55 years of age and older were included in this study. Participants with a history of overt cardiovascular disease (i.e., myocardial infarction, stroke, congestive heart failure, lower extremity revascularization, and peripheral arterial disease confirmed by an ankle/brachial index < 0.90) or chronic obstructive pulmonary disease were excluded because of the possible confounding influences that cardiovascular diseases may have on both physical activity and HRQL. Data were collected by using standard SF-36 questionnaire. SPSS version 15 for Windows was used to analyze all data. Independent t-tests were performed on continuous variables to determine differences in HRQL and demographic measurements between the high active and low active groups. Statistical significance was set at $P = 0.05$. Measurements are reported as mean ± standard deviation (SD).

RESULTS

All domains of HRQL were higher ($p < 0.05$) in the high active group than the low active group (Table 1). Table 1) Health-related quality of life measures in subjects who have lower and higher levels of physical activity(active , sedentary)

variable		N	t	Asymp.sig (2-tailed)
Quality of life	active	78	19.36	0.003
	sedentary	82		
Physical health	active	78	15.91	0.006
	sedentary	82		
Mental health	active	78	29.45	0.001
	sedentary	82		
bodily pain	active	78	-18.40	0.03
	sedentary	82		
Social functioning	active	78	15.38	0.02
	sedentary	82		

All five domains of HRQL were higher ($p < 0.05$) in the high active group than the low active group. Results showed there is significant different between health related quality of life in active and sedentary women and quality of life, physical health, mental health, social functioning in active women is better than sedentary and the bodily pain is lower in active women.

CONCLUSION

The results showed that health related quality of life in persons who has physical activity is better than sedentary persons.The retirement community more involved in mental activity, stress, anxiety, depression need to improve their health with physical activity and doing activities with associate in clubs and having regular program for community in sports society .There is significant different between active and sedentary retired women in quality of life. Pinter (2001), Liu Ambrose (2005), Kristin (2009) Jill and Jennifer (2005), Luke and Jessica (2006), Jaspal and Ashley (2010) were agree with this result and Damush (1999), Michael (2010), were disagree with the impact of physical activity on improving the quality of life.Physical health of retired active and sedentary women in this study are significantly different. The result of the finding, Brown (2004), Pinter (2001), David Brown (2003), Liu Ambrose (2005), Stewart (2003), were agree with this result but. The result of the findings Damush (1999) and Sehat (2001) are disagree with our research. Mental health of retired women have a significantly different between active and sedentary .level of Mental health in active women is higher than sedentary women . The result of the findings Asadi (1379), The Singer (2001), Ross and Hayes (2004), Brown (2004), LiuAmbrose (2005), Kristen Dmnt (2009), Jill and Jennifer (2005), Luke and Jessica (2006), Raphael and Bayes (2007), Adrian and Adam Neck (2010) were agree with our result and The result of the findings of Sehat(2001), Torsen (2005), Michael I.(2010) Were disagree with our finding.The bodily pain in sedentary women is higher than active persons.This result is disagree With the the finding of Torsen (2005).but is agree with Patti (2002)liuambrus (2005). There is significant different between the two groups in Social functioning . this result is agree with the finding of Singer (2001), Jennifer (1999 Telepathic (2002), Svalen (2005), Kolten (2001) and disagree with Luke and Jessica (2006) .According to most researches about physical activity ,it recommendation to all people to have exercise in all ages specially old men and women .Olders should have regular program to do physical activity even at least time in a day. Physical activity is very useful item for increase their physical health ,mental health ,quality
of life and decrease their bodily pain on their body.

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