

# SAUDI WOMEN AWARENESS OF PHYSICAL ACTIVITY BENEFITS ON THEIR HEALTH AND QUALITY OF LIFE

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## ABSTRACT

*The physical activity for Saudi women is a priority to help them improve their fitness and protect them of different diseases. The objective of this study is to investigate the regularity of practicing physical activity for women in rural and urban areas, as well as measuring their awareness of the importance of physical activity. The sample included women both from urban and rural areas to compare the results. The questionnaire was used to collect data. For the time and regularity of physical activity the International Physical Activity Questionnaire was used. The results showed that the light physical activity was practiced higher in both urban and rural societies. Also, the percentage of women practicing moderate physical activity was higher than those practicing vigor one. The results showed that women in urban areas were aware off physical activities as a mean to reach fitness and decrease obesity. The awareness of physical activity as a mean to minimize the risk of different disease was low. The study recommended that it is urgent to direct programs to educate women about the importance of physical activity in their lives.*

**Keywords:** Physical Activity (PA), Awareness, Rural Areas, Urban Areas, Health, Quality Of Life.

## INTRODUCTION

Physical Activity (PA) plays a major contributor in the improvement of women's quality of life in different attitudes related to women's health. The opportunity to practice physical activity differ from age to another and from area to another according to availability of facilities and the culture of the area. Some authors have shown that the opportunity of women to practice physical activity is higher in developed countries compared to developing countries. Other authors related the possibility of practicing physical activity to women's rights establishment.

On the other hand, the possibility of practicing physical activities differ from one area to another within the same country. Some authors indicated that women practicing physical activity more in urban areas compared to rural areas. This is may be associated to the availability of places and the distributed culture that affect women attitudes to practice the physical activities.

The effect of physical activity on women' health starts since small ages to elder ages. At each age the effect would be different according to women's physiology and the stage of life passing. In young ages the physical activities would leave physical and psychological impacts on women's life, but at older ages the impact would by physical.

Some authors have shown the effect of physical activities is associated to the regularity of practicing and the intense of practice. Other authors have indicated that any type of physical activity would be used for women in all ages. Generally, most authors raised the importance of physical activity for women to improve their lives physical and psychologically. The objective of this study is examining women's awareness for the importance of physical activity and its effect

on women's health. Also, the paper will measure the regularity of women practicing of physical activity and what kind of activity according to the International Physical Activity Questionnaire (IPAQ).

## LITERATURE REVIEW

Considerable percentage of deaths are caused by physical inactivity (6%) making it one of the life basics to conserve healthy life (Aligol et al., 2017). This put the physical activity the first concern for international, local, and medical institutions interested with women affairs. Despite the high concern the investigation of the effect of physical activity on women's health was not smooth due to the different physiological, psychological and biological changes the women's lives witness at different ages and in different roles in life. Moreover, the physical activities practicing by women is affected also by culture and other demographic characteristics.

Aligol, et al., (2017) investigated the geographical effect on the extent of physical activity practiced by women. The results showed that the highest percentage was reported for women with low PA, also moderate percentage was reported for moderate PA, while the lowest percentage reported for high PA practicing. This result was reported in a third world country. These results were consistent with World Health Organization results which show that PA is practiced higher in developed countries compared to developing countries (Organization, 2016). Al-Zalabani, et al., (2015) reported that the highest rate of PA practicing was reported Sweden and Denmark, while the lowest was reported in Brazil, Thailand and Kingdom of Saudi Arabia. These results reflect the effect of culture and social structure on women PA practicing, which forms obstacle in developing countries.

The other factor affecting women PA practicing within the same country is the place of residence urban or rural. The results show that PA practicing is higher in urban areas compared to rural areas (Organization, 2016). The other factors within the same country is related to gender inequality. In most countries the PA practicing by men exceeded significantly that of women. This problem is associated with gender issues in most developing countries (Edwards & Sackett, 2016). Some of these factors are related also to psychosocial factors. These factors are related to age, position, self-efficacy, outcome expectations, and body image.

(Thall, 2014) showed that the middle age women have more positive attitude to practice PA compared to other ages and specifically the older women ages. In this regard, self-efficacy which forms the women desire to change behavior and warding physical fitness. Social support is another factor affecting women attitudes to practice PA. The family and society support are both important to create the enough encouragement (Hornbuckle et al., 2014). Social support is considered a motivation of women to practice PA.

The other important factors associated with the extent of practicing PA for women is the existence of country infrastructure facilitating that. In developing countries, the low income and the low ability to pay for private places to practice PA forms another challenge for women (Organization, 2016). The availability of good and proper infrastructure that take into consideration the social customs will be a motive for women to practice PA.

The previous discussion concerned with the inputs that limit women attitudes to practice PA, while the second important part is associated with physical and medical outputs of PA side by side with women awareness of these outputs. In this regard, some of the outputs were approved and tangible for women, while others are of less effect on awareness due to their intangible results or outputs. The important tangible output is physical fitness (Teoman et al., 2004). Physical fitness is highly associated with obesity and its health consequences (Hornbuckle et al.,

2014; Teoman et al., 2004). Physical activity will help the loose of overweight helping the accomplishment of physical fitness (Hornbuckle et al., 2014; Mburu-Matiba, 2015; Segar et al., 2002). Physical fitness reflects women achievement of low body mass index, which reflects women's smart shape (Marcos-Delgado et al., 2020). On the other hand, the physical inactivity will lead to obesity, which is according to a wide variety of research is the door for many disease (O'Dougherty et al., 2009; Edwards & Sackett, 2016; Miyawaki et al., 2014).

Miyawaki et al., (2014) have shown that PA practicing reduces the prevalence of breast cancer. (Hornbuckle et al., 2014) have shown that PA decreases the cardiometabolic risk among women. Kumar (2017) has listed wide number of diseases can be overcome or their risk decrease through the PA. The list included diabetes, cardiovascular disease, hypertension, obesity, cancer, and osteoporosis. In general, Kumar (2017) approved that PA improves women's health.

## **METHODOLOGY**

### **Problem Statement**

The women's low PA practicing in developing country is the initiative of the research. This research will investigate the awareness of women of different ages with PA and its importance to improve physical fitness and decrease the risk of different diseases.

### **Objectives**

The objective of this research is to measure women's awareness in Saudi of the importance of physical activity to reach physical fitness and minimize the risk of different diseases in all women's ages.

### **Questions**

This research will answer the major question: What is the extent of women's awareness of physical activity and its impact through decreasing the risk of different diseases? Also, what is the extent of PA practicing in Saudi as a developing country using the International Physical Activity Questionnaire?

### **Significance**

This research will introduce the current women's awareness of PA, the extent of its practicing and the awareness of its importance to minimize disease risk. The research will draw image about PA in Saudi as a developing country.

### **Population and sample**

The population of this study composed of all women in Saudi. Due to the impossibility to reach all population random sample was selected. The random sample was selected from urban area in Amman governorate and rural area from Balqa governorate. The total number of women participated in the study was 1000 women. The sample was distributed equally for urban and rural women.

## Variables and measurement

The following table shows the variables included in the study.

Variable	Sources
Social and demographic variables	
Rural and urban	(Aligol, et al., 2017)
Age	(Thall, 2014), (Mburu-Matiba, 2015), (Juarbe, et al., 2002), (Haakstad, 2019)
Education	(Miyawaki, et al., 2014), (Aligol, et al., 2017)
Employment status	(Miyawaki, et al., 2014), (Aligol, et al., 2017)
Marital status	(Miyawaki, et al., 2014), (Aligol, et al., 2017)
Has Children	(Miyawaki, et al., 2014)
Household income	(Miyawaki, et al., 2014), (Aligol, et al., 2017)
Time of practicing PA	International physical activity questionnaire (IPAQ)
Physical fitness	(Teoman, et al., 2004), (Mburu-Matiba, 2015), (Marcos-Delgado, et al., 2020)
Diseases	(Albright, et al., 2014), (Albright, et al., 2019), (Haakstad, 2019), (Edwards & Sackett, 2016), (Miyawaki, et al., 2014), (Teoman, et al., 2004)

## Data Collection Tools

Questionnaire was used as a tool to collect data. The questionnaire composed of three parts. The first part concerned with the social-demographic characteristics of women. The first demographic character was age. Concerning age, the research was included all women under 18 years age. So the age categories were: 18-29, 30-39, 40-49, 50-59, and 60+. For education, the study was concerned with showing women behavior with different level of education. As a result, the education included the following stage: less than high school, high school, diploma, bachelor, and higher studies. For the employment status, the study is concerned if the woman is employed or not only. Concerning marital status the study concerned if the woman is married or not, and the woman has children or not. Lee, et al., (2011). The study concerned with the household income to measure woman ability to use private centers. For this purpose, the income category was less than 500 JD, 500-749, 750-1000 JD, and more than one thousand JDs.

The time spends for the practicing of PA was measured through the International Physical Activity Questionnaire (Aligol et al., 2017). The questionnaire is concerned with women aged 15-69 years. The questionnaire was developed in 1998, tested and validated to ensure the produced results. The complete questionnaire is available in [www.ipaq.ki.se](http://www.ipaq.ki.se). For the purpose of this study, the measurement of physical activity practices within 7 days before the distribution of the questionnaire and the selected questions matched the case of Saudi. The questions selected are: During the last 7 days, how many days did practice vigorous, moderate or light PA for more than 10 minutes? How much time did spend practicing PA (minutes per day)?

Did you practice walking practice walking activity within the last 7 days? Did practice any PA as household work? How much time (minutes per day)?

The third part of the questionnaire was concerned with women awareness of the effect of PA on their health including: fitness, loss of obesity, minimizing the risk of cardiovascular diseases, diabetes, hypertension, depression, osteoporosis, breast cancer). Likert 5 scale was used to measure the women's attitudes for the importance of PA in women's lives.

## **Validity and Reliability**

### **Validity**

The validity of the questionnaire was measured through offering the questionnaire on specialists in the field of PA and a pilot sample composed of twenty women outside the sample. The feedback was collected for the first part; social and demographic, and the third part concerned with women awareness. Feedback was collected and reflected on the questionnaire to finalize it for the distribution on the original sample. As the International Physical Activity Questionnaire already approved, it was excluded of validity measurement.

### **Reliability**

The reliability analysis was measured only for the third part. The result of Cronbach's alpha was 0.92 indicating that the tool is reliable.

## **RESULTS & DISCUSSION**

### **Demographic and Social Characteristics of the Sample**

The demographic characteristics are determinants of women convenience of PA as a good mean to reach healthy life. The distribution of sample included different ages in urban and rural areas. The highest age percentage in urban area was for 30-39 years with percentage 47.2, while for rural area, the highest percentage was for the age category 18-29 years. Most of the sample in urban and rural area included young women. The ages up to 49 years forms more than 93% of women in urban areas and more than 95% in rural areas. These results indicate that most of the sample is capable to practice PA (Table 2).

The highest percentage of sample in urban and rural women has bachelor degree (69.0% and 56.0%; respectively). This indicates that the sample included in this research have a good education that should be reflected on their lives. The percentage of "Less than high school" was very low among urban women (4.2%) and higher among rural women (11.2%). The percentage of higher studies was higher among urban women (9.6%), while it was only (0.4%) among rural women (Table 2).

The highest percentage of women are employed among the urban women (87.0%), while it reached 64.0% among the rural women. The increase of working women among the sample is resulted of the high needs for women contribution in the household expenditures and the low wages paid in general (Table 2).

Most of women participated in the study were married (63.6% in urban and 67.0% in rural area). Of these women, 59.4% have children in urban areas, while higher percentage of women (63.0%) have children in rural areas.

The results of household income show that most of families have income less than 750JD (71.7% among urban and 82.8% among rural women). This may justify the need of women work among the sample of the study. Marginal percentage of women living in household with high income with higher percentage occurred among urban women.

<b>Character</b>	<b>Urban</b>		<b>Rural</b>	
	Frequency	Percentage	Frequency	Percentage
<b>Age</b>				
18-29	120	24	186	37.2
30-39	235	47.2	142	28.4
40-49	111	22.2	151	30.2
50-59	34	6.8	21	4.2
60+	0	0	0	0
<b>Education</b>				
Less than high school	21	4.2	56	11.2
High school	45	9	121	24.2
Diploma	41	8.2	41	8.2
Bachelor	345	69	280	56
Higher studies	48	9.6	2	0.4
<b>Employment status</b>				
Employed	435	87	320	64
Not employed	65	13	180	36
<b>Marital status</b>				
Married	318	63.6	335	67
Not married	182	36.4	165	33
<b>Has Children</b>				
Yes	297	59.4	315	63
No	203	40.6	185	37
<b>Household income</b>				
Less than 500 JD	151	30.2	184	36.8
500-749 JD	208	41.5	230	46
750 – 1000 JD	108	21.6	64	12.8
More than 1000 JD	33	6.5	22	4.4

## Physical Activity Practicing Regularity

The general look to the results shows that women practicing of PA is very low among both urban and rural women. This is may contributed to different factors related to culture, family and time management problems. The results show that the highest percentage of women practiced PA more than ten minutes in urban areas (64%). This percentage dropped to reach only 45.0% in rural areas. This forms a good indication for the firs reading, but the type and extent of PA practiced were varied among women (Table 3). The low PA practicing may result of the low awareness of PA, the low support of women and the high family responsibilities. These factors were introduced by Edwards & Sackett (2016) as obstacles that decrease the practicing of PA by women.

The percentage of women practicing vigorous PA was very low among the sample (reached 22.8% out of 320 women practiced PA in the last 7 days). This percentage dropped to 4.4% among 225 rural women practicing PA. The percentage of urban women practicing moderate PA is 36.9%, while it dropped to 24.4% among rural women. The highest percentage of urban women practicing light PA (40.3% out of 320 urban women practicing PA), while the percentage of rural women practicing light PA is 71.1%. El Ansari, et al. (2014) have shown that the least practicing was recorded for vigorous PA and moderate percentage was recorded for walking.

The percentage of women practiced walking is 23.0% among urban women compared to a double percentage (42.2%) among rural women. The time spent walking was 25 minutes on average among urban women, while it was 45 min among rural women. The percentage of women practicing PA through the household work is 59.0% among urban women with average time 125 min, while higher time for practicing PA through household work recorded among rural women (65.0%) with average time 250 min.

Pattern or regularity	Urban		Rural	
	Freq.	Per.	Freq.	Perc.
Did you practice PA for more than ten minutes in the last 7 days?				
Yes	320 (n=500)	64	225 (n=500)	45
No	180 (n=500)	36	275 (n=500)	55
Did you practice vigorous PA in the last 7 days?				
Yes	73 (n=320)	22.8	10 (n=225)	4.4
Did you practice moderate PA in the last 7 days				
Yes	118 (n=320)	36.9	55 (n=225)	24.4
Did you practice light PA in the last 7 days?				
Yes	129 (n=320)	40.3	160 (n=225)	71.1
How much time did you practice PA per day (minutes per day) in the last 7 days?				
	35 min		15 min	
Did you practice walking activity in the last 7 days?				
Yes	115 (n=500)	23	211 (n=500)	42.2

No	385 (n=500)	77	289 (n=500)	57.8
How much time you walk within the day (minutes per day)	25 min		45 min	
Did you practice any household works that required physical activity?				
Yes	295 (n=500)	59	325 (n=500)	65
No	205 (n=500)	41	175 (n=500)	35
How much time per day (minutes per day)	125 min		250 min	

### Awareness of PA to Improve Health and Minimize Risk of Diseases

The awareness of physical activity to improve women's health is very low. The highest awareness was recorded for getting rid of obesity among urban women with mean 4.1, while it was low among rural women with mean 1.1 ( $p < 0.05$ ). The second positive awareness was for the importance of PA to get physical fitness (Mean = 3.9 and 3.3 for urban and rural women respectively) (Table 4).

The rest of awareness items were negative for rural women, while the importance of PA to remove depression was positive for urban women (mean=3.2) significantly different from rural women ( $P < 0.05$ ). The low awareness of urban and rural women of the effect of PA on different disease is resulted of the lack of education regarding health and the lack of programs that explain the importance of PA to improve women's health (Table 4). Miyawaki, et al., (2014) reported low awareness of women for the importance of PA to minimize the occurrence of breast cancer. These results were associated with all demographic characteristics of women. Hornbuckle, et al., (2014) have shown that the PA for women will improve body weight, BMI, and waist circumference and so affect positively the prevention of cardiovascular diseases. Only the awareness of women was with the remove of obesity was in harmony with (Hornbuckle, et al., 2014). Kumar (2017) has approved that the PA cause the protection of women of all the diseases mentioned in Table 4. This indicates that there is a lack of women education in the medical issues and its relation to PA.

Marcos-Delgado, et al. (2020) has approved that the PA improve the BMI and so improve women's health life. The women in this study were aware of the importance of PA to improve their physical fitness and decrease obesity.

Awareness Item	Urban		Rural		t-value	Prob
	Mean	St. Dev	Mean	St. Dev		
PA helps in reaching physical fitness	3.9	0.91	3.3	1.32	1.21	0.63
PA helps getting rid of obesity	4.1	0.81	2.5	1.1	4.12	0.03
PA minimize the risk of cardiovascular diseases	2.1	1.32	1.9	0.95	1.36	0.96
PA helps in protecting of diabetes	1.9	1.1	1.8	0.92	0.96	1.63
PA helps in protecting of hypertension	2.8	1.4	2.1	0.92	1.23	0.95



PA helps in minimizing the feel of depression	3.2	0.95	2.3	0.82	4.2	0.041
PA decreases the exposure for osteoporosis	2.6	1.1	2.1	0.91	0.65	2.31
PA helps in minimizing the pains of menstrual	2.1	1.4	1.6	0.81	0.81	3.2
Do you think PA minimize the risk of breast cancer	1.9	1.5	1.7	0.91	0.89	3.2

## CONCLUSIONS AND RECOMMENDATIONS

The objective of this research is to study the regularity of practicing PA and the type of physical activity practiced. Also, the paper aimed at measuring women awareness of the importance of PA to reach physical fitness and minimize the risk of different diseases. The questionnaire was used as tool to collect data. The random sample of the study was distributed equally on women in urban and rural areas for comparison purposes. The results showed that most of women in both urban and rural areas practice the light PA. The results showed that rural women practice PA through the household work. The ability of women to join private centers to practice physical activities was low due to low family income in both urban and rural areas. The results showed that the awareness of women for the importance to reach physical fitness is high despite their low practicing of PA, but their awareness of physical activity as a mean to avoid or minimize the risk of different diseases or minimize the pain of menstrual. The results showed that the culture of physical activity for women is not well distributed. The study recommended the preparation of programs designed to increase the awareness of women to practice PA. The programs should concentrate on improve the awareness of activities that did not require any paying. Also, the study recommended the organization of programs for women in both rural and urban areas to distribute the culture of women physical activity and improve women health in all ages.

### Future Work

The distribution of awareness of PA for women requires understanding of different women age category of the importance activities. This research recommends the classification of women according to age and execute studies of awareness for age separately to provide deep information about awareness to help different programs toward different ages to improve awareness of PA for women in developing countries.

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