PHYSICAL ACTIVITY STATUS AND BARRIERS AMONG WOMEN AT DENGKIL, SEPANG, SELANGOR, MALAYSIA

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Abstract

Background: Widespread physical inactivity is a major public health problem and improving physical activity levels is crucial. This challenging situation is now well recognised by international and national health bodies. Thus, the aim of this study was to determine the physical activity status and barriers towards the physically inactive among the women community.

Materials and Methods: A cross-sectional study was conducted in apartments area in Dengkil, Sepang, Selangor. A systematic random sampling was conducted to choose the respondents' unit and a simple random sample of women aged 18 years and above was selected. Data were collected by an interviewed structured questionnaire.

Result: Majority of the respondents (66.7%) were physically inactive. Among those were unemployed (81.2%) and divorcee / widower (71.1%). Busy (48.5%) and lazy (14.4%) were the common barrier factors towards physically active among respondents.

Conclusion: It is crucial for healthcare providers to educate the community, especially women on the importance of physical activity and how vital it is in maintaining overall health status. Continuing surveillance among general and vulnerable populations is necessary to evaluate motivators and barriers towards active living.

Keywords: physical activity, BMI, sleeping duration, barriers, socio-demography

1.0 INTRODUCTION

Physical activity is defined as any bodily movement produced by skeletal muscles that results in energy expenditure, which can be measured in kilocalories (Caspersen, et al., 1985). It has a great influence on body composition and also a major independent modifiable risk factor which has a protective effect on cardiovascular disease (CVD), stroke, type 2 diabetes, colon and breast cancers, and is also associated with other important health outcomes such as mental health, injuries and falls (Miles, 2007).

The physical inactivity is the fourth leading risk factor for global mortality, causing an estimated 3.2 million deaths and 2.6 million are in low- and middle-income countries (WHO, 2010). World Health Organisation (WHO) also reports, globally around 23% of adults aged 18 and over are not active enough in 2010 (men 20% and women 27%). Adolescent girls are also less active than adolescent boys, with 84% vs. 78%, which is not meeting WHO recommendations (WHO. 2018).

Study by Yang, (2012) suggest that physical activities can improve overall sleep quality and research conducted by Magee & Hale (2012) shows that shorter sleep duration consistently predicts subsequent weight gain in most people. Among housewives who physically inactive, 80% are overweight (Sabariah & Manan, 2013), and those who are physically inactive and have high Body Mass Index (BM) are at risk of developing diseases such as heart failure (Pandey, et al, 2017).

Thus, this study has been conducted to determine the prevalence and barriers towards physical activity, among women community. Therefore, through our study, we expect to help the women community become more physically active and be more aware of its importance.

2.0 METHODOLOGY

A cross-sectional study was carried out in apartments area in Dengkil, Sepang, Selangor, which comprises of 12 blocks of apartments with 960 units. Majority of the residents were Malay.

Systematic random sampling was conducted to choose the respondents' unit, followed by simple random sampling to select the respondent within the household. All women who were living

in the apartments, aged more than 18 years, not mentally retarded, deaf and mute, from each unit were selected. Respondents who refused to participate in the survey or were not there during the survey after three visits, will be considered as non-respondents.

Data was collected through face to face interview using a set of structured questionnaire from NHMS (2015a). The body mass index (BMI), was calculated and classified based on Clinical Practice Guideline (CPG) on primary & secondary prevention of cardiovascular diseases (CPG, 2017) into Normal (BMI <23 kg/m^2) and Overweight / Obese (BMI ≥ 23 kg/m^2). The data has been analyzed using descriptive statistics to get the frequency and relative frequency (percentage) for physical activity level and sociodemographic variables.

3.0 RESULTS

A total of 132 participants participated in this study.

Table 1. Prevalence of physical activity among women respondents

Physical Activity status	n	%
Active	44	33.3
Inactive	88	66.7
Total	**132**	**100**

Majority (66.7%) of the respondents are physically inactive (Table 1).

Table 2: Physical activity and BMI status by socio-demographic (N=132)

Sociodemographic Factors	Physical Activity Status		TOTAL n (%)	P-Value
	Active n (%)	Inactive n (%)		
Age				
< 20	0 (0)	2 (100.0)	2 (100)	0.571
20 – 29	15 (37.5)	25 (62.5)	40 (100)	
30 – 39	9 (26.5)	25 (73.5)	34 (100)	
40 – 49	14 (42.4)	19 (57.6)	33 (100)	
50 – 59	4 (33.3)	8 (66.7)	12 (100)	
≥ 60	2 (18.2)	9 (81.8)	11 (100)	
Marital status				
Not married	15 (48.4)	16 (51.6)	31 (100)	0.139
Married	25 (28.7)	62 (71.3)	87 (100)	

Sociodemographic Factors	Physical Activity Status		TOTAL n (%)	P-Value
	Active n (%)	Inactive n (%)		
Divorcee/Widower	4 (28.6)	10 (71.4)	14 (100)	
Education level				
No formal education	0 (0)	2 (100.0)	2 (100)	0.221
Primary education	3 (21.4)	11 (78.6)	14 (100)	
Secondary education	24 (30.4)	55 (69.6)	79 (100)	
Tertiary education	17 (45.9)	20 (54.1)	37 (100)	
Occupational status				
Unemployed	3 (18.8)	13 (81.2)	16 (100)	0.343
Govt. / Semi-govt.	2 (40.0)	3 (60.0)	5 (100)	
Private employee	22 (45.8)	26 (54.2)	48 (100)	
Self-employed	4 (26.7)	11 (73.3)	15 (100)	
Housewife	12 (27.9)	31 (72.1)	43 (100)	
Retiree	0 (0)	2 (100.0)	2 (100)	
Student	1 (33.3)	2 (66.7)	3 (100)	
Monthly income (RM)				
< 1000	3 (25.0)	9 (75.0)	12 (100)	0.700
1000 - 4999	39 (35.1)	72 (64.9)	111 (100)	
≥ 5000	2 (22.2)	7 (77.8)	9 (100)	

The prevalence of physically inactive are higher among age 30-39 years (73.5%), and divorcee / widower (71.4%), had primary education (78.6%), unemployed (81.2%), housewife (72.1%) and respondents who earn more than RM 5000 per month (77.8%) (Table 2).

Table 3. Barrier Factors for Physically Active among Respondents

Barrier Factors	n	%
Busy	64	48.5
Lazy	19	14.4
Health problem	18	13.6
Not interested	13	9.8
No reason	10	7.9
Feel enough	4	3.0
No suitable place	2	1.5
No partner	2	1.5
Total	**132**	**100**

Busy, lazy and health problems are the common barrier factors towards physically active among respondents (48.5%, 14.4% and 13.6%, respectively) (Table 3).

Table 4a: Association between physical activity status and sleeping duration

Physical activity Status	Sleeping duration		Total n (%)	P-value (χ^2 value)
	Adequate n (%)	Inadequate n (%)		
Active	23 (52.3)	21 (47.7)	44 (100.0)	0.055
Inactive	61 (69.3)	27 (30.7)	88 (100.0)	(3.683)

Among respondents who are physically active, majority are having adequate sleeping duration (52.3%) (Table 4a) and ideal BMI level (63.6%) (Table 4b). However, statistically there are no significant association between physical activity and sleeping duration or BMI level among women respondents ($p > 0.05$).

Table 4b: Association between physical activity status and BMI level

Physical activity Status	BMI level (kg/m^2)		Total n (%)	P-value (χ^2 value)
	< 23 n (%)	≥ 23 n (%)		
Active	28 (63.6)	16 (36.4)	44 (100.0)	0.070
Inactive	69 (78.4)	19 (21.6)	88 (100.0)	(3.285)

4.0 DISCUSSION

Overall, in 2017/18, 26% of women are classed as physically inactive, whereas, in the Asian ethnic group, women are more likely to be inactive than men (36% compared with 27%) (DDCMS, 2019). In Malaysia, studies conducted by Poh et al. (2010) and NHMS (2015b) also report that women are more physically inactive (43% and 38.3%, respectively) and they were decreasing in trend. However, our findings showed quite high prevalence (66.7%) of physically inactive among women.

They were mainly at the age of 30-39 years, unemployed, housewife and divorcee or widower. These findings were consistent with a study conducted by Gichu (2018) where the physical inactivity is more prevalent among those in middle age (30–49 years), no formal education and unemployed.

This could be attributed to social-cultural factors including gender roles. More specifically, these factors include the dominance of work and family responsibilities on women, social norms that lack of social support for women to be active, social isolation, environmental constraints, economics, and low levels of personal knowledge and motivation that limit physical activity among women (Tavares & Plotnikoff, 2008; Parra-Medina & Messias, 2011; Omoleke, 2013). Kaleta, et al., (2017) also supported that it could be associated with the fact that women had more workload at home and in a different way shared the time devoted to responsibilities, which was consistent with a study conducted by Sharara, et al. (2018) that showed higher prevalence of inactivity among women/girls due to traditional religious that restrict the participation of women in certain forms of physical activity as they need to stay home and fulfil their domestic responsibilities

Our result showed that 54.3% of female who have higher BMI level were physically inactive. Vincent, et al., (2012) reported that housewives have a high prevalence of being overweight (71.4%) and this was another contributing factor to joint pain which leads to physically inactive. Veenhof. et al. (2012) and Sabariah & Manan, (2013) also supported that their respondents were physically inactive due to joint pain (65% and 11%, respectively).

Studies have shown that majority of the single respondents were physically inactive (NHMS, 2015b; Aisyah Waheeda, 2018). Our study also showed 71.4% of widower / divorcee respondents were physically inactive. This might be due to the feeling of unnecessary for them to be active because they live alone (Notthoff, et al., 2017) or personal reasons where the individuals themselves make excuses and decide to be physically inactive (Ibrahim, et al., 2013).

Further data of study done by Kaleta, et al. (2017) indicated that the women declared not taking up physical activity due to high general physical activity (work, home) (36.4%), lack of time (30.8%) and no willingness to exercise (27%). Many studies have reported that lack of interest / motivation and lack of energy were the most frequent perceived reason by the respondents to avoid being physically active (Ibrahim, et al., 2013; Sjors, 2014; Aisyah Waheeda, 2018). Our study also

showed that lazy and not interested were among the excuses for not being physically active (14.4% and 9.8%, respectively).

Lazy or not interested might be due to inadequate of their sleeping duration as reported by Schmid, et al. (2009) where the proportion of sedentary activity was increased and high intensity activity decreased after short sleep. It was supported by Benedict, et al. (2011) who has concluded that sleep was a state of energy conservation. Our result showed 63.4% of respondents with adequate sleeping duration were physically active and a study done by Mohd Zikrullah, et al., (2019) reported a significant association between physical activity and sleeping duration, where 64.8% of the respondents who were physically inactive, were also had inadequate sleeping duration.

Studies also showed that inadequate sleeping was associated with greater likelihood of developing hypertension (Fang, et al., 2012) and twice the risk of being overweight, compared with sleeping for long duration (Fatima, et al., 2015). Weight status moderated the effect of physical activity barriers on physical activity behavior (Napolitano, et al, 2011), as showed in our finding, among respondents who were physically inactive, 21.6% have higher BMI level.

5.0 CONCLUSION

Majority of our women respondents were physically inactive and among the barriers to physically active were lack of time and lazy.

As women are the majority population in any residential areas and main influencer to the family, they should be active and healthy. Thus, it is crucial for healthcare providers to educate the community, especially women on the importance of physical activity and how vital it is in maintaining overall health status. Continue monitoring of physical activity is required. Furthermore, continuing surveillance among general and vulnerable populations is necessary to evaluate motivators and barriers towards active living.

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