PHYSICAL ACTIVITY STATUS OF COMMUNITY IN KG HULU CHUCHOH, SUNGAI PELEK, SEPANG, SELANGOR, MALAYSIA

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Abstract

Background: The recent increase in development and technology has led to a decreased physical status in Malaysians. Research has suggested that Malaysians have become less physically active due to lack of time as they are too busy. Physically inactive people have higher risk of being obese and developing diseases such as heart failure. Thus, the aim of this study was to determine the physical activity status and the association with Body Mass Index (BMI) among the community in Kg Hulu Chuchoh, Sg. Pelek, Sepang, Selangor.

Materials and Methods: A cross sectional study was done among Malaysian, aged 18 years and above and were residents of Kg Hulu Chuchoh. Respondents were selected through random sampling method. Data have been collected through face to face interview, using a validated questionnaire and BMI measurement.

Result: Majority of the respondents (81.9%) were physically active. Among those were female (82.0%), divorcees/widows (92.3%) and self-employed (84.7%). Lack of time (55.7%) and joint pain (12.3%) were among the reasons for physically inactive.

Conclusion: Majority of the community in Kg Hulu Chuchoh, Sg Pelek, Sepang was physically active and it was significantly associated with BMI status.

Keywords: physical activity, overweight, BMI, association, socio-demography

1.0 INTRODUCTION

World Health Organization (WHO, 2004) defines health as 'a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity', formulated in 1948. The National Health and Morbidity Survey (NHMS, 2015) and Cheah & Poh (2013) report that Malaysian adults are physically active (66.5% and 56.5%, respectively). Physical activity is important as there appears to be a graded linear relation between physical activity status and health status, in which the most physically active people are at the lowest risk of developing diseases (Warburton, 2006).

Chu (2013) states that among participants who are physically active, the prevalence of obesity is lower (11.7%), compared to physically inactive (13.3%). Among 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 physical activity status and the association with Body Mass Index (BMI) among the community in Kg Hulu Chuchoh, Sg. Pelek, Sepang, Selangor. Therefore, through our study, we expect to help the community become more physically active and be more aware of its importance.

2.0 METHODOLOGY

A cross-sectional study was carried out in Kg Hulu Chuchoh, Sg Pelek, Sepang, Selangor, which comprises of 500 village houses.

Systematic random sampling was conducted to choose the respondents' house, followed by simple random sampling to select the respondent within the household. All residents who were living in Kg Hulu Chuchoh, aged more than 18 years, not mentally retarded, deaf and mute, from each house were selected. Respondents who refused to participate in the survey or were not there during the survey after two visits, will be considered as non-respondents.

Data was collected through face to face interview using a set of validated questionnaire from NHMS (2015). 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) and Overweight / Obese (BMI $\geq$ 23). The data has been analyzed using descriptive statistics to get the frequency and relative frequency (percentage) for physical activity level and sociodemographic variables. The association was determined by Pearson chi-square test. The level of significance was set at $p < 0.05$ and confidence level at 95%.

3.0 RESULTS

A total of 227 participants participated in this study, giving an overall response rate of 100%.

Table 1. Prevalence of physically active among respondents

Physical Activity status	n	%
Active	186	81.9
Inactive	41	18.1
Total	**227**	**100**

Based on Table 1, 81.9% of the respondents are physically active.

Table 2: Physical activity and BMI status by socio-demographic (N=227)

Sociodemographic Factors	Physical Activity Status			BMI Status			TOTAL
	Active n (%)	Inactive n (%)	P-Value	< 25 kgm^2 n (%)	≥ 25 kgm^2 n (%)	P-Value	n (%)
Age							
18 – 24	24 (70.6)	10 (29.4)	0.216	27 (79.4)	7 (20.6)	<0.001*	34 (100.0)
25 – 44	53 (85.5)	9 (14.5)		21 (33.9)	41 (66.1)		62 (100.0)
45 – 64	71 (85.5)	12 (14.5)		25 (30.1)	58 (69.9)		83 (100.0)
>65	38 (79.2)	10 (20.8)		27 (56.2)	21 (43.8)		48 (100.0)
Gender							
Male	81 (81.8)	18 (18.2)	0.967	45 (45.5)	54 (54.5)	0.708	99 (100.0)
Female	105 (82.0)	23 (18.0)		55 (43.0)	73 (57.0)		128 (100.0)
Marital status							
Not married	42 (80.8)	10 (19.2)	0.602	34 (65.4)	18 (34.6)	0.002*	52 (100.0)
Married	132 (81.5)	30 (18.5)		61 (37.7)	101 (62.3)		162 (100.0)
Divorcee/Widow	12 (92.3)	1 (7.7)		5 (38.5)	8 (61.5)		13 (100.0)
Education level							
No formal education	16 (76.2)	5 (23.8)	0.302	8 (38.1)	13 (61.9)	0.581	21 (100.0)
Primary education	43 (87.8)	6 (12.2)		25 (51.0)	24 (49.0)		49 (100.0)
Secondary education	96 (83.5)	19 (16.5)		47 (40.9)	68 (59.1)		115 (100.0)
Tertiary education	31 (73.8)	11 (26.2)		20 (47.6)	22 (53.4)		41 (100.0)
Occupational status							
Not working	64 (84.2)	12 (15.8)	0.835	44 (57.9)	32 (42.1)	0.012*	76 (100.0)
Govt. / Semi-govt.	11 (78.6)	3 (21.4)		8 (57.1)	6 (42.9)		14(100.0)

Private employee	20 (76.9)	6 (23.1)	13 (50.0)	13 (40.0)	26 (100.0)
Self-employed	61 (84.7)	11 (15.3)	24 (33.3)	48 (66.7)	72 (100.0)
Housewife	21 (75.0)	7 (25.0)	8 (28.6)	20 (71.4)	28 (100.0)
Retiree	9 (81.8)	2 (18.2)	3 (27.3)	8 (72.7)	11 (100.0)
TOTAL	**186 (100.0)**	**41 (100.0)**	**186 (100.0)**	**41 (100.0)**	**227 (100.0)**

Table 2 shows prevalence of physical activity and BMI among respondents. There is higher prevalence of physical active among female (82.0%), divorcees/widows (92.3%), those who received primary education (87.8%) and self-employed (84.7%)

Whereas, prevalence of overweight are significantly higher among the age group of 45-64 (69.9%), married (62.3%) and retiree (72.7%).

Table 3. Reasons of Physically Inactive among Respondents

Reasons	**n**	**%**
Lack of time	113	55.7
Joint pain	25	12.3
Lack of interest	23	11.3
Lack of energy	23	11.3
Too old	19	9.4
Total	**203**	**100**

Among respondents who are not physically active, the most frequent reported reason is lack of time (55.7%) (Table 3)

Table 4. Association between physical activity and BMI status among respondents

BMI status	**Physical activity status**				
	Active n (%)	**Inactive n (%)**	**TOTAL**	X^2	***p* value**
< 25 kgm^2	76 (76.0)	24 (24.0)	**100 (100.0)**	4.464	0.039
≥ 25 kgm^2	110 (86.6)	17 (13.4)	**127 (100.0)**		

Among respondents who are overweight, 86.6% are physically active. Statistically there is a significant association between physical activity and BMI status among respondents ($p < 0.05$) (Table 4).

4.0 DISCUSSION

Out of 227 respondents, 81.9% were physically active. Majority of them at the age of 25-64 years old, which also has higher prevalence of overweight. Our study also showed that 86.6% of overweight respondents were significantly physically active. The prevalence of physical activity was higher than the prevalence of physical activity in the overall population of Malaysia (66.5%) (NHMS, 2015) and in England (61.0%) (BHF, 2017). This might be due to the fact that majority of our overweight respondents were active (86.6%) and the most probably reason for physically active amongst our overweight (BMI $\geq$ 25) respondents could be due to the respondents having a lot of social support and motivation to be active (Ibrahim et al., 2013). However, this result was inconsistent with a study done by Singh et al (2015), who reports that only 40.5% of overall participants who were overweight, were physically active.

Cheah & Tan (2014) reports that respondents aged 30 or younger are more physically active (18%) than those who are not (12%), thus suggesting that younger individuals may be more inclined to exercise compared to the older population. However, our study showed that those who are in the age group 18-24 have the highest prevalence of physical inactivity (29.4%), consistent with result from National Health and Morbidity Survey (NHMS, 2015), where the age group 18-24 was the most physically inactive. The higher prevalence of physical inactivity might be due to the few respondents (15.0%) who are within the age group 18-24 in the community of Kampung Hulu Chuchoh. Most of the community consists of those in the age group 45-64 (36.6%), as reported by the Scottish Government Survey Data (SGSD, 2017) that rural areas have a lower percentage of the population in the 16-34 age group but a higher proportion of people aged 45 and over.

A study done in Malaysia by Chan et al. (2014) shows that men were more physically inactive (64.7%) than women (49.5%). This was inconsistent with studies conducted by Poh et al. (2010) and NHMS (2015) who report females were more physically inactive than males (43% and 37%, 38.3% and 28.9%, respectively). However, our study showed the prevalence of physically inactive among males was slightly higher than females (18.2% and 18.0%, respectively). The prevalence of females who were inactive could be associated with their roles as housewives, in which our finding showed 25% of housewives were physically inactive. Female housewives were too busy carrying out their responsibilities and roles such as taking care of house (87.6%) and taking care and tidying the house (96.8%) (Yuhaniz & Mahmud, 2015)

Sharara et al. (2018) reports that the prevalence of inactivity was higher 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 whereas Thanamee et al., (2017) states that it is a cultural norm of importance of fair skin by avoiding sunlight exposure. Joint pain might also be the cause of inactivity among female or housewives, as women commonly get joint pain (52.4%) compared to men (47.0%) (Thiem et al. 2013). Females who were housewives also were reported to have a high prevalence of being overweight (71.4%). This was another contributing factor to joint pain because as BMI values increase, joint pain symptoms and severity increase (Vincent et al., 2012).

Eleven percent of our respondents also claimed that their lack of physical activity was due to joint pain. This was consistent with a study done by Veenhof et al. (2012) who reports that 65% of the respondents were physically inactive due to joint pain.

Sjors (2014) in his study, reports that lack of interest/motivation (17.0%) was the most frequent perceived reason by the respondents followed by feeling awkward (8.0%) and lack of time (7.0%). Our study also showed 11.3% of respondents have physical inactivity due to lack of interest and lack of energy. Ibrahim et al. (2013) reports that respondents used lack of interest and lack of energy as excuses to avoid being physically active with 9.2% and 21.6% respectively. This could be due to personal reasons where the individuals themselves make excuses and decide to be physically inactive (Ibrahim et al., 2013).

The main reason of physical inactivity amongst the community of Kampung Hulu Chuchoh was due to lack of time (55.7%). Lack of time amongst respondents may be partly due to increasing financial responsibilities for males from extended families and many domestic responsibilities for the females (Samir et al., 2011). This was quite consistent with our findings, where those who were employed showed higher prevalence of physical inactivity compared to those who were self-employed or not working.

A study done in Poland by Elzbieta & Pawel (2015) states that subjects who are in a relationship were more physically inactive (36.3%) than those who are single (30.3%). Similarly, Jamsiah et al. (2007), also report that respondents who are single are more physically active than married couples (24.2 and 8.8%, respectively). However, our study showed majority of the single respondents were physically inactive (19.2%), compared to 34.1% in NHMS (2015). This might be due to the feeling of unnecessary for them to be active because they live alone, as reported by Notthoff et al., (2017).

5.0 CONCLUSION

The respondents of Kampung Hulu Chuchoh were physically active and majority of them were females, divorcees/widows and self-employed. Physical activity status was also significantly associated with BMI status. Among the reasons of physical inactivity were lack of time and joint pain.

Thus, it is crucial for healthcare providers to educate the community on the importance of physical activity and how vital it is in maintaining overall health status.

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