

Physical Inactivity: Prevalence and Barriers Among Residents of Klang Valley & Muar, Johor, Malaysia

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ABSTRACT

Background: Physical activity is an unequalled method of prevention to countless of illnesses and as such we found it rudimentary to unearth its barriers, in hopes for it to be addressed, for a healthier and happier tomorrow.

Objectives: To assess the prevalence of physical activity, and unveiling its barriers.

Material and Methods: A cross-sectional study was carried out amongst 313 adults using the IPAQ questionnaire and the BBAQ. The data collected was then analysed using Jeffreys's Amazing Statistics Program (JASP).

Results: Among the respondents in Klang Valley and Muar, 26.2% were physically inactive, with lack of motivation leading the justification, followed by lack in time and lack of energy.

Conclusion: Lack of motivation was the greatest deterrent to a more active lifestyle, fundamentally today's communities are lacking the push factor to be active, if tackled, the results could be remarkable.

Keywords: Physical Inactivity, Barriers, Klang Valley, Muar

INTRODUCTION

Physical activity is defined as any bodily movement produced by skeletal muscles that requires energy expenditure and it is recommended that people engage in at least 150 minutes per week of moderate-intensity aerobic physical activity to help reduce the detrimental effects of high levels of sedentary behaviour on health.^[1] The World Health Organization (WHO) also reported

that physical inactivity, or sedentary behaviour, remains the fourth leading risk factor for mortality in the world despite the known benefits of having an active lifestyle. Based on the National Health Morbidity Survey (NHMS) conducted in 2019, 25.1% of Malaysians were physically inactive and contribute to 16.4% of all mortality in the country.^[2] A study done in Sepang showed that the top reported barriers to being physically active were lack of energy (23%), lack of time (19%) and lack of motivation (19%).^[3]

Thus, this study aimed to determine the prevalence and barriers to physical inactivity among the community in Muar and Klang Valley.

MATERIALS AND METHODS

A cross-sectional study has been conducted in Klang Valley and Muar, where both areas are multi-racial with different social backgrounds and statuses.

Convenience sampling was used to collect the data. Questionnaires were disseminated online through various social networking platforms to the community of Muar and Klang Valley. Only Malaysians of ages 18 and above and who do not have amputated limbs, paralysis and cancer were used as samples. Respondents had to provide consent before answering the questions.

The International Physical Activity Questionnaire – Short Version (IPAQ) and the Barriers to Being Active Quiz (BBAQ) were used in this study. The IPAQ short

version consisted of seven questions that provided data on moderate and vigorous-intensity physical activity. [4] The BBAQ had 21 questions that were scaled from zero to three which focused on seven barriers. [5]

RESULTS

A total of 313 respondents with a response rate of 98.4% participated in this study.

Table 1: Prevalence of physical inactivity

Physical activity	n	%
Inactive	82	26.2
Active	231	73.8
Total	313	100

Table 1 shows that the prevalence of physical inactivity is 26.2%.

Table 2: Physical inactivity according to sociodemographic data.

Socio-demography	Physical Inactivity		
	Active n (%)	Inactive n (%)	Total n (%)
Age Group			
<20	11 (68.7)	5 (31.3)	16 (5.1%)
20-29	80 (73.4)	29 (26.6)	109 (34.8)
30-39	61 (72.6)	23 (27.4)	84 (26.8)
40-49	40 (74.1)	14 (25.9)	54 (17.3)
50-59	32 (82.1)	7 (17.9)	39 (12.5)
≥ 60	7 (63.6)	4 (36.4)	11 (3.5)
Gender			
Male	105(74.5)	36 (25.5)	141 (45.0)
Female	126(73.3)	46 (26.7)	172 (55.0)
Race			
Malay	98 (68.5)	45 (31.5)	143 (45.7)
Chinese	52 (70.3)	22 (29.7)	74 (23.6)
Indian	66 (85.7)	11 (14.3)	77 (24.6)
Others	15 (78.9)	4 (21.1)	19 (6.1)
Education level			
No formal education	0 (0.0)	1 (100.0)	1 (0.3)
Primary	13 (72.2)	5 (27.8)	18 (5.8)
Secondary	36 (69.2)	16 (30.8)	52 (16.6)
Tertiary	182(75.2)	60 (24.8)	242 (77.3)
Occupation			
Unemployed	16 (72.7)	6 (27.3)	22 (7.0)
Government	55 (82.1)	12 (17.9)	67 (21.4)
Private	79 (76.0)	25 (24.0)	104 (33.2)
Self-employed	28 (71.8)	11 (28.2)	39 (12.5)
Retiree	7 (70.0)	3 (30.0)	10 (3.2)
Student	44 (64.7)	24 (35.3)	68 (21.7)
Others: housewife, freelance	2 (66.7)	1 (33.3)	3 (1.0)
Marital status			
Single	109(71.2)	44 (28.8)	153 (48.9)
Married	115 (75.2)	38 (24.8)	153 (48.9)
Divorced/widowed	7 (100)	0 (0.0)	7 (2.2)
Household income			
B40	68 (69.4)	30 (30.6)	98 (31.3)
M40	125(78.1)	35 (21.9)	160 (51.1)
T20	231(73.8)	82 (26.2)	55 (17.6)

The physical inactivity is highest among the elderly aged 60 and above (36.4%), females (26.7%), Malays (31.5%), secondary education (30.8%), students (35.3%), singles (28.8%) and the B40 income group (30.6%).

Table 3: Barriers to physical activity (N = 82)

Barrier	n	%
Lack of motivation/willpower	66	80.5
Lack of time	63	76.8
Lack of energy	59	72.0
Social influence	41	50.0
Lack of resources	41	50.0
Lack of skill	31	37.8
Fear of injury	29	35.4

The top three barriers are lack of motivation (80.5%), lack of time (76.8%) and lack of energy (72.0%).

DISCUSSION

Our study found the prevalence of physical inactivity among the respondents in both Klang Valley and Muar was almost consistent with the National Health and Morbidity Survey in 2019 (26.2% and 25.1%, respectively). [2] There was only a slight difference in the prevalence by one percent, which could be due to our smaller sample size and being only targeted towards specific areas which are Klang Valley and Muar. Although, since our study was done during the pre-endemic stage of the Covid-19 pandemic, the slight increase could also be due to the people being more inactive in the previous year during the lockdown and is further supported by a study showing the prevalence of physical inactivity did decrease after the release of the lockdown restriction but did not return to the same prevalence as before the pandemic in 2020. [6-7]

Females are found to be more inactive (26.7%) which was supported by two studies stating that females were most inactive. [8-9] This could be attributed to social influence where the social norms of females usually incline more to light- and moderate-intensity activities such as housekeeping and food preparation while men tend to participate in vigorous-intensity activities such as playing sports such as badminton or even going to the gym. [10] Females also do not perceive that

they have as diverse a network of support or motivation from significant others to perform their physical activity as compared to males. [11]

Lack of motivation was also listed as the main contributor to physical inactivity (80.5%) in our study with a higher prevalence of inactivity among single respondents (28.8%), which were consistent with a previous study that reported a higher prevalence among female and single respondents (11.3% and 19.2%, respectively). [12] A study found that motivation is significantly associated with physical activity ($p < 0.001$) which supports that motivation is a vital factor to be considered for physical activity where respondents with high autonomous motivation had higher levels of physical activity in MET minutes/week. [13] Having a partner is important in giving support and helping to be consistent in living a healthier life. [14]

Other than lack of motivation, lack of time (76.8%) and lack of energy (72.0%) also contributed to being physically inactive in our study, which was also consistent with several studies showing that the above-mentioned barriers were prominent factors in limiting physical activity among the population. [15-17]

The overall lack of motivation could be explained by the Covid – 19 restrictions where people experience the lack of gym partners or the gym environment and this creates the absence of a connectedness feeling that is usually felt in a gym was a reason for the low motivation factor. [18]

One way to overcome the lack of motivation is to set goals for physical activity. This is supported by a randomised controlled trial done in Utah, the intervention group that was given an exercise goal measured in the number of steps a day showed a significant increase in physical activity compared to the control group. [19]

A study done by University Kebangsaan Malaysia stated that students are likely to be involved in numerous academic and non-academic activities that are non-exercise

related which makes them put exercise on a lower priority, [20] which contributed to lack of time as our second barrier to physical activity. This was consistent with studies done in Sepang, [3,21] which both showed that lack of time was their barrier factor (19% and 41.2%, respectively).

Another study on ‘Lack of time as a Consistent Barrier to Physical Activity and Exercise’ in South Carolina and Southern Ontario showed that 53% of males complained of having too many things to do. [22] It also has been reported that men with low-middle income were more physically active (85.8%) due to their work in manual labor. However, for every given leisure time, these men decided to not participate in any physical activity and would rather stay at home to rest. [23-24]

The elderly was found to be the most inactive among all age groups (36.4%) which could be explained by the effect of the aging process. [25] They tend to have lower self-efficacy as they perceived their deteriorating age as the cause of their physical inactivity. [26] In view of their sedentary behavior which is mostly determined by arthritis-related stiffness and pain, [27] contributed to the barrier of fear of injury (35.4%).

The social influence could also be a barrier to being physically inactive as the elderly also prefers to do physical activity with their friends of the same age and this selective behaviour leads to the decision to not do physical activity. [28]

CONCLUSION

Overall, the prevalence of physical inactivity among the community in both Klang Valley and Muar was slightly higher, compared to the National Health and Morbidity Survey done in 2019. Our study has also found that the more prominent barriers to physical activity are the lack of motivation.

Hence, it is crucial that action is taken to overcome the barriers that challenge the community to be physically active. Improving the motivation and also introducing a variety of methods to address the barriers are needed among the physically

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