

Leisure Time Physical Activities among Adult Attendees at a Primary Health Care Clinic

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ABSTRACT

Objectives: This cross-sectional study was undertaken to determine the leisure-time physical activities of adult attendees in a rural health clinic in July 2002. **Methods:** Simple random sampling method of the clinic register was used. Data was collected via a face-to-face interview using a pre-tested questionnaire. **Results:** A majority (73%) of the attendees performed leisure-time physical activity. The majority were between 20 to 29 years ($p<0.05$), females ($p>0.05$), Kadazan, Iban and Orang Asli ($p<0.05$), single ($p>0.05$), had attained tertiary education ($p<0.05$) and were employees with monthly income of more than RM1500 ($p>0.05$). They were also free from chronic illnesses. The most common activities were walking, aerobic dancing and gardening. Physical and mental wellness, advice from doctor and support from family and friends were the reasons for performing these activities. The reasons for not performing leisure physical activity were (i) being too busy, (ii) already active at workplace, and (iii) being unwell. **Conclusions:** Sustained community interventions in the community could prove useful to encourage individuals to carry out leisure-time physical activities.

Keywords: Leisure-time, physical activity, adult, rural, health clinic

INTRODUCTION

Physical activity is an important healthy lifestyle practice which is advocated by the Center of Disease Control and Prevention of the United States.^[1] The proven benefits of physical activities are numerous especially if performed continuously and in accordance to the recommended levels of at least 30 minutes of moderate-intensity physical activity preferably on most days of the week.^[2] It can improve and strengthen the cardiovascular system and prevent chronic diseases like hypertension, hypercholesterolemia, diabetes mellitus, colon cancer and obesity. It also provides mental well-being among its practitioners.

Physical activities comprise activities of daily living, sports and leisure and occupation.^[3] Physical activity can be classified as mild or light (walking slowly, stationary cycling, swimming slowly and bowling), moderate (walking briskly, racket sports, table tennis, cycling for pleasure and swimming leisurely) and vigorous or heavy (walking briskly uphill or with a load, fast cycling or racing, fast swimming and singles tennis).^[4] The protective effect of physical activity varies with the different categories. The frequency, intensity and the duration of physical activity also play an important role. To obtain maximal effect on the cardiovascular system, the activity needs to be of vigorous intensity for a long duration and more than three times a week.^[2]

Recent surveys in Australia, Canada, England and the United States reported that only 10% of the adult population of each country engaged in vigorous physical activities during

their leisure time, on an average of at least three occasions a week for 20-30 minutes per occasion and a third of them undertook less vigorous or less frequent activities.^[5]

In Malaysia, according to the Second National Health and Morbidity Survey 1996 (NHMS 2) and the First National Health and Morbidity Survey 1986-1987, 37.6% and 30% of Malaysians respectively undertook some form of physical activity.^[6,7] Carter *et al.* reported that 16.9 % of Singaporeans exercise regularly, three times a week for at least 20 minutes per session.^[8]

The objectives of this study were to determine the characteristics of adult attendees at a primary health care clinic in a rural community who undertook physical activity by age, gender, ethnicity, marital status, occupation, educational level, income and chronic diseases. This study also explored the types of physical activities undertaken by these attendees.

METHODS

This cross- sectional study was conducted at Salak Tinggi Health Clinic in Sepang District, Selangor, Malaysia in July 2002.

Study Location

Selangor, one of the fourteen states in Malaysia, is made up of 9 districts. Sepang is one of the districts with an area of 599.7km². Health care is provided by government as well as the private clinics. Salak Tinggi Health Clinic is one of the three government health clinics. This clinic serves the community through its outpatient clinics, as well as maternal and child clinics.

Study Participants

The study population comprised registered patients of the Outpatient Department Salak Tinggi Health Clinic during the study period. They were selected from the clinic registration book via simple random sampling method. The participants were Malaysians between twenty to sixty years old. Pregnant women and medical staff were excluded from this study. Willing participants were interviewed only once.

Data Collection

A face-to-face interview via a pre-tested questionnaire was utilised to collect data in this study. The questionnaire, adapted from the Minnesota Leisure-time Physical Activity Questionnaire, was prepared in two languages namely Bahasa Malaysia and English.^[9]

Physical activity is defined as bodily movement that is produced by the contraction of skeletal muscles performed at leisure or as an extra activity. Vigorous activity include jogging/running fast, lap swimming, fast cycling, aerobic dancing, jumping rope, racket sports. Moderate physical activity include brisk walking, swimming, cycling leisurely, dancing, gardening and various domestic and occupational activities.^[10] In this study anyone who undertook any form of physical activity, irrespective of frequency was included.

Statistical Analysis

The data were analysed using SPSS version 11.0. The *p*-values of below 0.05 were considered as statistically significant.

RESULTS*Demography of Respondents*

There were 360 adult attendees eligible for the study and 300 were interviewed resulting in a response rate of 83.3%. Their ages ranged from 20 to 59 years; the majority, 107 (36%) were in the 20-29 years followed by 81 (27%) in the 30-39 years, 73 (24%) were 40-49 years and 39 (13%) were between 50 – 59 years. A hundred and fifty-six (52%) were males and 144 (48%) were females. The respondents comprised 186 (62%) Malays, 76 (25.3%) Indians and 30 (10%) Chinese. The majority, 223 (74.3%) were married while 69 (23%) were single. A hundred and seventy-five (58.3%) attained secondary education. Of the respondents, 217 (72.3%) were working while 57 (19%) were housewives. A hundred (33.3%) respondents earned between RM 501-1000, while 59 (19.7%) earned from RM 1001 to RM1500.

Physical Activity and Demography

Two hundred and nineteen (73.0%) attendees stated that they performed physical activity while 81 (27.0%) did not perform any physical activity at all (Table 1). Physical activity was undertaken mostly by respondents who were between 20-29 years and this was statistically significant. The performance of physical activity was higher among females, (76.4%) then in males (69.9%). However, this was insignificant statistically. Malays and 'other' races which included Orang Asli, Iban and Kadazan were the ones who performed the most physical activity. This was significant. Respondents who attained general tertiary education constituted the majority of those performing physical activity (92.6%) and this was statistically significant.

Types of Physical Activity

The most common types of physical activity carried out by the study sample were walking (22.7%), aerobic dancing (18.3%), gardening (17.3%), racquet sports (11.7%), jogging (8.5%), team sports (7.4%), cycling (3.3%), fishing (2.8%), skipping rope (2.3%) and other physical activity (5.6%) like swimming, mountain climbing, bowling, weightlifting, golf, and calistenic exercises (Fig. 1).

Among the 137 walkers, 23 (7.7%) walked seven times per week or more while 14 (4.7%) walked 3 times per week. The majority walked between 1 to 2 times a week. The mean time spent for walking was 26.62 minutes with the majority of 55 (18.3%) walking for 30 minutes at each session.

Among the 62 who practised aerobic dancing, the majority (30) danced for more than 7 times a week with a mean duration of 6.6 minutes per session. The majority spent 15 minutes per session.

Table 1. Demography and physical activity

Demographic factor	Physical activity (%)		<i>p</i> -level
	Yes (219)	No (81)	
Age			
20-29 years	90 (84.1)	17 (15.9)	* <0.05
30-39 years	61 (75.3)	20 (24.7)	
40-49 years	43 (60.3)	29 (39.7)	
50-60 years	24 (61.5)	15 (38.5)	
Gender			
Male	109 (69.9)	47 (30.1)	>0.05
Female	110 (76.4)	34 (23.6)	
Ethnicity			
Malay	152 (80.6)	34 (19.4)	* <0.05
Chinese	14 (50.0)	16 (50.0)	
Indian	46 (61.8)	30 (38.2)	
Others	7 (85.5)	1 (12.5)	
Marital status			
Single	53 (76.8)	16 (23.2)	>0.05
Married	162 (72.6)	61 (27.4)	
Divorced	3 (50.0)	3 (50.0)	
Widow(er)	1 (50.0)	1 (50.0)	
Educational status			
General tertiary education	50 (92.6)	4 (7.4)	* <0.05
General secondary education	127 (73.3)	47 (26.7)	
General primary education	36 (56.5)	26 (43.5)	
No formal education	4 (62.5)	3 (37.5)	
Employment status			
Employed	158 (72.8)	59 (27.2)	>0.05
Unemployed	61 (73.5)	22 (26.5)	
Salary			
Less than RM 500	7 (53.8)	6 (46.2)	>0.05
RM 501-1000	72 (72.3)	28 (27.7)	
RM 1001-1500	43 (71.9)	15 (28.1)	
Greater than RM 1500	35 (77.8)	10 (22.2)	

* Statistically significant

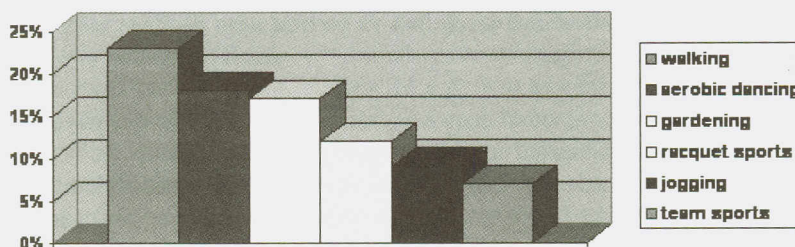


Figure 1. Types of physical activities among attendees of Salak Tinggi Health Clinic

Among the 95 respondents who gardened, the majority (31) gardened 3 times per week and 19 gardened seven times or more. The mean time spent in gardening was 20.4 minutes per session. However, 40 respondents spent 60 minutes gardening at each session.

Physical Activity and Reasons for Performing/Not Performing

The reasons given by the participants for performing physical activity were for physical and mental wellbeing (16.0%), advice from doctor and support from family and friends (14.0%), benefits of physical activity (14.0%), foster good relationship between friends and family (13.0%), available facilities (11.0%), available time (11.0%) and for better sleep (8.0%).

Some of the reasons given for not performing physical activity were being too busy (29.9%), already active at workplace (18.9%), unwell (11.9%), lack of facilities (6.8%), poor social support (1.3%) or physical activity viewed as unimportant (1.2%)

Physical Activity and Chronic Diseases

Of the 300 respondents, 163 (54.3%) suffered from chronic illnesses while 137 (45.7%) were free from chronic illnesses. The majority, 134 (82.2%) who performed physical activity were free from chronic illnesses. Chronic illnesses prevalent among the respondents were hypertension (37.4%), asthma/bronchitis (18.4%), diabetes mellitus (10.1%) and arthritis (7.3%).

DISCUSSION

This study showed that 73% of adult attendees in a health clinic in a rural setting performed some form of physical activity irrespective of duration and frequency. Another study carried out among attendees of all the health clinics in Sepang District reported 49.1% performed physical activity, at least three times per week, each session lasting for 20 minutes and 11.1% only at times.^[11] The NHMS 2, utilising a similar definition of physical activity as Abdul Rahman *et al.*, reported the prevalence of physical activity among adults as 11.6% (95% confidence interval 11.1-12.0).^[6] Carter *et al.* reported that 16.9% of Singaporeans exercised regularly, three times a week for at least 20 minutes per session.^[8] One-third of Americans, Australians, Canadians and the English engaged in less vigorous or less frequent leisure time activities.^[5]

Another result of this study is that physical activity is most commonly practised by those in the 20 to 29 years of age group but its participation declines with age. Similar findings have also been reported by other studies.^[6,11] which found that physical activity among adults declines with age until age 65 years.^[5] A longitudinal study among older adults in the United States reported decreasing performance in vigorous physical activity. The older age group participated in light to moderate physical activity.^[12] Older adults exercised less and chose less vigorous activities as they faced more problems like muscle weaknesses and restricted body movement due to aging, joint problems and bone diseases.^[13] However, in Finland and Canada, adults aged 30 to 59 years have been classified as highly active.^[5]

Our study shows that physical activity was performed more by females than males despite the larger male population among the respondents. This could be attributed to available time and a more health conscious attitude among the female respondents. A previous study in Sepang Health Clinics also reported similar findings.^[11] However, other studies have reported more males participating in physical activity compared to females.^[6,8,14] Males in USA and England are 80% more likely to be vigorously active than females.^[5]

In this study, 87.5% grouped under 'others' consisting of Orang Asli, Iban and Kadazan, performed physical activities compared to 80.6% Malays, 61.8% Indians and 50% Chinese. However, the number of respondents grouped under 'others' in the ethnic grouping is rather small. Similar findings were also noted by the NHMS 2.^[6] This, however, cannot be generalised to the population as there is disparity in the utilisation of the health services by the other races. Malays tend to utilise government facilities due to its low cost.

More single respondents performed physical activity compared to the married, widowed and divorced respondents. The singles with fewer family commitments have more time to spend on physical activities. Our findings were in contrast to a study in Finland.^[15] Another study in the United States, however, reported that both sexes were inactive after marriage especially the pregnant women.^[16]

Among the attendees at this clinic, physical activity was carried out more commonly among those with general tertiary education. They had better knowledge and were more aware of the beneficial effects of physical activity. They are also more physically active while performing their jobs.

Other studies also report similar findings in relation to physical activity^[6,11,14] among the educated group. Recent studies on Australians, Canadians and the English reveal that the most educated group are 1.5 to 3.1 times more likely to be active as the least educated.^[5] Our study found that physical activity was more commonly practised by the unemployed (73.5%) such as the housewives and pensioners as reported by the NHMS 2.^[6] The unemployed have more time compared to the employed who are busy and are too tired to carry out physical activity.

Respondents earning more than RM 1500 were more likely to perform physical activity in this study. The lower income group utilised their income optimally for living expenses. Among the Canadians, it was reported that those in the highest household income group were more physically active. They were able to afford the high cost of equipment and user fees imposed by recreational facilities.^[17]

The common physical activity by Salak Tinggi Health Clinic attendees were walking, aerobic dancing and gardening. Abdul Rahman *et al.* report that jogging, brisk walking and aerobic exercises are the common activities performed by attendees in Sepang Health Clinics.^[11] The NHMS 2 reported jogging, team sports and brisk walking as the most popular physical activities.^[6] The National Population Health Survey of Canada November 1999 reported walking, gardening, home exercises, bicycling and swimming as the most popular activities.^[17]

Another observation is that most performers of physical activity in this study were free of chronic diseases. There is therefore less hindrance to movement and activities. Regular physical activity has a protective effect on the development of diabetes and hypertension. It improves body composition, resting blood pressure in borderline hypertensives, blood lipid profile, glucose tolerance and insulin sensitivity as well as immune and physiological functions.^[13]

Our study has several limitations. The application of physical activity practices in this study was too general. The use of a self-report measure to examine levels of physical activity may not reflect accurately the true levels of exercise and fitness. We did not undertake an in-depth study of leisure time activities while on the job.

CONCLUSION

The prevalence of leisure time physical activity among the attendees of Salak Tinggi Health Clinic, a rural setting was 73.0%. Respondents who were physically active were between 20 to 29 years, Iban, Kadazan and Orang Asli and Malays, with tertiary education, and free of chronic diseases. The common activities practised were walking, aerobic dancing and gardening.

Although the health benefits of leisure time physical activity are well documented, special efforts need to be initiated to ensure that this healthy lifestyle activity is adopted, practised accordingly and sustained by the people. Community-wide interventions in this area could prove useful in helping this active individuals sustain these activities and for the older adults and men to become more physically active.

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