Physical inactivity and associated factors in chronic disease patients in Cambodia, Myanmar and Vietnam

Karl Peltzer and Supa Pengpid

6th ISPAH Congress, Bangkok
Social science that makes a difference

HSRC
Human Sciences
Research Council

Background

Few studies exist investigating physical activity among chronic disease patients in Asian countries.

Study aims:

to investigate the prevalence and associated factors of physical activity in a sample of chronic disease patients in three Southeast Asian countries (Cambodia, Myanmar and Vietnam).

Methods

- Cross-sectional survey
- The sample size included at least 800 persons from rural health facilities and 800 individuals from urban health facilities in each country.
- The health facilities in urban and rural areas were conveniently selected.
- Every eligible patient (18 years and above and having been treated for a chronic disease in the past 12 months) was selected from the health facility, using a systematic sampling procedure

HSRC
Human Sciences
Research Council

Measures & Analysis

Physical activity was assessed by the General Physical Activity Questionnaire (GPAQ) (WHO, 2009).

Unconditional multivariable logistic regression was used for the evaluation of the impact of explanatory variables for the key outcome of low physical activity (binary dependent variable)

HSRC
Human Sciences
Research Council

Table 1: Sample characteristics and prevalence of physical activity among adult chronic disease patients in Cambodia, Myanmar and Vietnam

Variables	Total sample	Prevalence of physical activity		
		Low	Moderate	High
	N (%)	%	%	%
All	4803	30.9	24.6	44.5
Age (years)				
18-45	1917 (41.2)	25.7	22.9	51.4
46-60	1517 (32.6)	26.4	23.4	50.2
61-94	1216 (26.2)	43.8	29.0	27.2
Country				
Cambodia	1602 (33.4)	34.0	22.3	43.8
Myanmar	1600 (33.3)	23.4	29.3	47.3
Vietnam	1601 (33.3)	35.4	22.2	42.3
Gender				
Female	3314 (69.6)	28.8	27.6	43.6
Male	1447 (30.4)	35.7	18.0	46.4
Education				
Grade 0-5	1650 (34.4)	35.3	22.5	42.2
Grade 6-11	2080 (43.4)	26.4	26.7	46.8
Grade 12 or more	1066 (22.2)	32.6	23.8	43.5
Marital status				
Single/divorced/widowed	1249 (26.4)	37.3	28.3	34.4
Married/cohabiting	3478 (73.6)	28.6	23.2	48.2
Employment status				
Not employed	2656 (55.4)	35.1	28.0	42.2
Part-time employed	723 (15.1)	30.0	19.9	46.8
Full-time employed	1415 (29.5)	23.5	20.7	43.5
Geolocality				
Rural	2657 (55.4)	34.8	25.7	39.5
Urban	2135 (44.6)	26.1	23.4	50.5
Chronic conditions				
One	2605 (54.5)	29.0	25.8	45.2
Two	1358 (28.4)	31.5	23.3	45.1

Table 2: Level of physical inactivity in different domains of activities

Domains of physical inactivity	Cambodia % (CI)	Myanmar % (CI)	Vietnam % (CI)
Men (N=1447)			
No vigorous activity at work	49.9 (44.7-55.0)	54.6 (50.1-59.0)	75.5 (71.9-78.8)
No moderate activity at work	56.3 (51.1-61.4)	32.6 (28.5-36.9)	54.6 (50.6-58.5)
No vigorous activity during leisure	87.4 (83.5-90.5)	83.8 (79.4-86.1)	76.2 (72.6-79.4)
No moderate activity during leisure	84.6 (80.5-88.0)	53.7 (49.3-58.2)	62.8 (58.9-66.6)
Did not walk or cycle from places to places	69.2 (64.2-73.8)	23.2 (19.7-27.2)	64.3 (60.4-68.3)
Women (N=3314)			
No vigorous activity at work	68.7 (66.1-71.3)	73.9 (71.2-76.4)	89.1 (87.0-90.9)
No moderate activity at work	33.4 (30.9-36.1)	20.5 (18.2-23.0)	37.4 (34.4-40.5)
No vigorous activity during leisure	96.3 (95.1-97.2)	85.0 (82.8-87.0)	91.5 (90.0-93.1)
No moderate activity during leisure	84.9 (82.8-86.8)	57.4 (54.5-60.3)	61.0 (57.9-64.1)
Did not walk or cycle from places to places	58.7 (55.9-61.4)	21.6 (19.2-24.1)	55.9 (52.7-59.0)

CI=Confidence Interval

patients in Cambodia, Myanmar and Vietnam

Variable	AOR (95% CI)[a] Male	AOR (95% CI)[b] Female	AOR (95% CI)[c] Both
Sex			
Female			1.00
Male			1.35 (1.13-1.62)***
Age (in years)			
18-45	1.00	1.00	1.00
46-60	1.06 (0.77-1.47)	1.00 (0.80-1.25)	1.03 (0.86-1.23)
61-94	1.19 (0.83-1.71)	2.54 (2.00-3.22)***	2.08 (1.72-2.52)***
Education			
Grade 0-5	1.00	1.00	1.00
Grade 6-11	0.67 (0.49-0.92)*	0.86 (0.70-1.04)	0.79 (0.67-0.93)**
Grade 12 or more	1.11 (0.77-1.62)	1.76 (1.34-2.31)***	1.52 (1.22-1.88)***
Marital status			
Single/divorced/widowed	1.00	1.00	1.00
Married/cohabiting	0.81 (0.59-1.13)	0.72 (0.60-0.87)***	0.70 (0.60-0.82)***
Employment status			
Not employed	1.00	1.00	1.00
Part-time employed	0.39 (0.27-0.55)***	1.22 (094-1.59)	0.81 (0.66-1.00)
Full-time employed	0.44 (0.32-0.61)***	0.70 (0.55-0.87)**	0.61 (0.54-0.77)***
Geolocality			
Rural	1.00	1.00	1.00
Urban	1.02 (0.79-1.32)	0.57 (0.47-0.68)***	0.69 (0.60-0.80)***
Chronic conditions			
One	1.00	1.00	1.00
Two	0.82 (0.62-1.10)	1.05 (0.86-1.28)	0.99 (0.84-1.17)
Three or more	1.04 (0.71-1.53)	1.00 (0.79-1.26)	1.04 (0.85-1.26)
Quality of life			
Low	1.00	1.00	1.00
Medium	1.14 (0.75-1.73)	1.01 (0.77-1.34)	1.05 (0.83-1.32)
High	0.63 (0.48-0.82)***	0.67 (0.56-0.81)***	0.66 (0.57-0.77)***
Current tobacco user	1.04 (0.80-1.36)	1.42 (1.03-1.96)*	1.19 (0.98-1.46)
Problem drinking (AUDIT-C:3 ore more)	1.71 (1.27-2.29)***	1.60 (1.08-2.38)*	1.67 (1.33-2.09)***

Conclusions

-This study showed that <u>almost one third</u> of chronic disease patients in Cambodia, Myanmar and Vietnam were <u>physically inactive</u>.

-Considering the sub-optimal rate of physical activity among these chronic disease patients and the importance of physical activity in improving health and preventing non-communicable diseases, efforts may need to be made to promote physical activity, particularly during recreational time.

-Several factors were identified which may assist in programmes to promote physical activity in this population

Acknowledgement

- Funding: This project received

support from Mahidol University

- & partial support from the

National Research Foundation,

South Africa

HSRC
Human Sciences
Research Council