Correlates of Physical Activity and Sedentary Behaviour in Thailand: a Systematic Review

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INTRODUCTION

To develop effective interventions to increase physical activity (PA) and reduce sedentary behaviour (SB), we need to understand correlates of the behaviours. Given substantial differences between geographical areas in social, cultural, environmental, and economic factors, it is important to explore PA/SB correlates in specific countries [1].

PA and SB are influenced by many factors [2]. However, a comprehensive review of multi-level factors is lacking in low- and middle-income countries including Thailand [2-8].

AIMS

This study aimed to systematically review and summarise the available evidence on individual, social, environmental, and policy correlates of PA and SB in the Thai populations. We also aimed to identify the key gaps in the literature on PA and SB correlates in Thailand and provide recommendations for future research.

METHODS

The **systematic review** followed the **PRISMA** guidelines. The **primary search** was conducted from database inception to September 2016 using **10** databases. The **secondary search** was conducted using Google; Google Scholar; references of the studies selected in the primary search; and the websites of Thai health organizations.

25,007
Records identified through primary and secondary searches

Studied healthy Thai people

Presented at least 1 correlate of PA/SB

Primary research written in TH/ENG

Included studies

167

CODING RULES

To pool the results of individual studies, we used the procedure proposed by Sallis et al. [7] The pooled associations between studied variables and PA/SB were classified as: **'+'** (mostly positive associations); **'–'** (mostly negative associations); or **'?'** (mostly non-significant associations). The codes were determined based on the percentage of significant positive/negative, or non-significant associations.

% of studies*	Code describing the association between a variable and PA/SB†	Meaning of the code
0 - 59	?	Mostly non-significant or inconsistent associations
60 - 100	+ or –	Mostly positive (+), or negative (–) associations

*Percentage of studies showing positive or negative association; †When four or more studies showed positive or negative association, the summary results were coded as ++, and --, respectively. The code "??" denoted a frequently studied correlate whose association with PA/SB was largely inconsistent across the studies.

RESULTS

PA Of **261** reported correlates, **124** were statistically significant

SB Of **41** correlates, **22** were statistically significant

Consistent correlates of higher PA

Consistent correlates of higher SB

6-17 yrs
Younger age, Being a male, **Higher self-efficacy**, **Lower perceived barriers**, Greater friendship influences

None

18-59 yrs
Higher self-rated general health, **Better mental health**, **Positive attitudes towards PA**, **Higher self-efficacy**, **Higher perceived benefits**, **Lower perceived barriers**, More spare time, Better social support, Greater interpersonal influences, Greater family influences, Better information support

Obesity

60+ yrs
Higher self-rated general health, **Better mental health**, **Positive attitudes towards PA**, **Higher self-efficacy**, **Higher perceived benefits**, **Lower perceived barriers**, Higher outcome expectancies, Greater knowledge of PA, Better physical and functional fitness

None

CONCLUSIONS

To increase PA in Thailand, public health interventions should focus on helping individuals to: improve self-efficacy; circumvent perceived barriers for PA; improve general and mental health; find enough spare time to engage in PA; improve physical fitness; gain knowledge about PA; and receive adequate social support for PA participation.
The body of literature on correlates of SB in Thailand is limited. Nevertheless, evidence suggests that interventions for reducing SB in Thai adults should primarily target obese individuals, as they seem to be at a greater risk of high SB.
More Thai studies are needed on PA correlates, particularly among children/adolescents and with more focus on environment- and policy-related factors. Much greater commitment is needed to investigate correlates of SB in Thailand, particularly among older adults. Researchers are also encouraged to conduct longitudinal studies and use device-based measures of PA and SB if feasible.

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