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Factors influencing the exercise behavior of working age individuals Mae Klong Subdistrict, Mueang Samut Songkhram District, Samut Songkhram Province.

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Abstract

This study employed a cross-sectional design to examine factors influencing exercise behavior among working-age individuals in Mae Klong Sub-district, Mueang Samut Songkhram District, Samut Songkhram Province. Data were collected from a sample of 394 participants using questionnaires. Descriptive statistics, including frequency, percentage, mean, and standard deviation, were used for data analysis, while predictors of exercise behavior were examined using Enter multiple regression analysis. The results showed that 33.16% of participants were male, and most were aged 41 years or older (64.81%), followed by those aged 31- 40 years (8.73%). Regarding education level, most participants held a bachelor's degree (30.13%). The majority were self-employed (30.89%), 63.50% reported having no underlying diseases, and 28.86% had a normal BMI. Reinforcing and enabling factors were found to have a statistically significant positive influence on exercise behavior. The model explained 42.10% of the variance in the dependent variable, suggesting that other unmeasured factors may further account for the remaining variation.

Keywords: Exercise Behavior, Leading Factors, Contributing Factors, Auxiliary Factors, Working Age Individuals

1. Introduction.

In the era of globalization, rapid technological advancement has led to changes in lifestyle, causing working people to move less and engage in fewer physical activities. A sedentary lifestyle is a major risk factor for chronic non-communicable diseases (NCDs) such as heart disease, diabetes, cancer, and stroke, which account for more than 70% of global deaths (World Health Organization, 2024).

In Thailand particularly in rural or sub-district areas outside major urban centers many challenges have been identified, including time constraints, which may prevent working individuals from exercising as recommended. Studies in other provinces have shown that personal factors, such as beliefs in the benefits of exercise, influence physical activity levels (Sopha et al., 2022). However, there remain significant research gaps at the sub-district level, especially among working populations in the Mae Klong Sub-district, Mueang Samut Songkhram District.

Therefore, it is necessary to conduct this study to address these gaps by examining contributing and reinforcing factors influencing regular exercise behavior. This research is important not only for building knowledge about health behaviors among the working-age population but also for applying the findings to design exercise promotion programs suited to the local context of Mae Klong. Such programs may ultimately help reduce the burden of non-communicable diseases, lower healthcare costs, and sustainably enhance community well-being.

1.1 Objectives.

The objectives are as follows:

- 1) To study personal factors and leading factors. Contributing factors.
- 2) To study the factors influencing the exercise of working age individuals. In Mae Klong Subdistrict, Mueang District, Samut Songkhram Province.

2. Methodology.

According to the analysis, the leading factors had the most positive influence. This study employed a cross-sectional analytical design to investigate factors related to the exercise behavior of working-age individuals in Mae Klong Subdistrict.

The research instrument was a questionnaire consisting of five parts:

Part 1: General Information

This section included seven items on personal characteristics such as gender, age, occupation, education level, medical conditions, body mass index (BMI), and monthly income.

Part 2: Questionnaire on Predisposing Factors

This section measured recognition of the benefits of exercise (10 items), self-exercise skills (10 items), and attitudes toward exercise (10 items).

Part 3: Questionnaire on Enabling Factors

This section consisted of 10 items related to the availability of exercise venues and 10 items concerning access to exercise equipment.

Part 4: Questionnaire on Reinforcing Factors

This section contained 10 items on family support and 10 items on support from community or exercise leaders.

Part 5: Exercise Behavior Questionnaire

This section included 10 items on pre-exercise behavior, 10 items on behavior during exercise, and 10 items on post-exercise behavior.

Sections 2–5 used a five-point Likert scale (from lowest to highest). The interpretation of the scores followed the guidelines of Best (1977), categorizing results as high, moderate, or low.

Descriptive statistics (frequency, percentage, mean, and standard deviation) were used to analyze personal characteristics. Inferential statistics, specifically multiple regression

analysis, were applied to determine the influence of various factors on the exercise behavior of working-age adults.

3 Research Ethics.

This research was approved by the Research Ethics Committee of Suan Sunandha Rajabhat University (Certificate No. COE. 2-631/2024). Participants were informed of the research objectives and given the freedom to decide whether to participate. All data were kept confidential and destroyed after analysis and publication.

4. Results

The results of the general data analysis showed that most of the participants were female (66.84%), followed by male participants (33.16%). The majority were aged 41 years or older (64.81%), followed by those aged 31–40 years (18.73%). In terms of education, most participants held a bachelor's degree (30.13%). The majority were self-employed (30.89%), 63.50% reported having no underlying diseases, and 28.86% had a normal BMI.

Based on the analysis of the overall sample data, it was found that predisposing factors related to exercise were at a moderate level ($M = 2.66$, $S.D. = 0.55$), enabling factors were also at a moderate level ($M = 2.43$, $S.D. = 0.69$), and exercise behavior itself was at a low level ($M = 2.20$, $S.D. = 0.74$). Overall, the exercise behavior of the working-age participants was found to be at a low level ($M = 2.25$, $S.D. = 0.71$), as shown in Table 1.

Table 1 Results of Factor Data Analysis (N=395)

Factors	M	S.D.	Results
Leading factors in exercise	2.66	0.55	Moderate
Recognizing the benefits of exercise	2.92	0.26	Moderate
Exercise skills	2.37	0.71	Moderate
Attitude to exercise	2.56	0.68	Moderate
Factors contributing to exercise	2.43	0.69	Moderate
Fitness facilities	3.54	1.14	Moderate
Exercise Tools & Equipment	3.79	1.08	high
Factors	M	S.D.	Results
Auxiliary factors in physical activity	2.20	0.74	Low
Family Support	2.35	0.74	Moderate
Receiving information	2.30	0.76	Low
Community Leaders/Fitness Leaders	1.91	0.89	Low
Exercise Behavior	2.25	0.71	Low
Pre-Workout Behavior	1.97	0.67	Low
Exercise behavior	2.35	0.74	Low
Post-workout behavior	2.32	0.73	Low

The results of the regression analysis to predict factors influencing the exercise behavior of working-age adults revealed that predisposing, enabling, and reinforcing factors had a statistically significant positive influence on exercise behavior. The predictive equation can be expressed as follows: $\hat{Y} = 0.098 + 0.596(x_1) + 0.149(x_2) + 0.173(x_3)$. The model explained 42.1% of the variance in the dependent variable, suggesting that additional factors not included in this study may further account for the remaining variation, as shown in Table 2.

Table 2 Regression analysis to predict factors affecting exercise behavior of working age individuals (N=395)

Factors	B	S.E.	$\hat{\beta}$	t	p-value
constant	0.098	0.223		0.441	0.659
Leading factors in exercise (x_1)	0.596	0.057	0.466	10.536	0.000
Factors contributing to exercise (x_2)	0.149	0.044	0.157	3.368	0.001
Auxiliary factors in physical activity (x_3)	0.173	0.051	0.169	3.429	0.001

R = 0.649; R² = 0.421; Adjusted R² = 0.406; Standard Error of the Estimate (SE_{est}) = 0.549; F = 27.889; p-value < 0.001; *Correlation is significant at the 0.05

5. Discussion

According to the analysis, the predisposing factor had the strongest positive influence on the dependent variable, with a regression coefficient of $\beta = 0.596$. This indicates that when the predisposing factor increases by one unit, the dependent variable increases by 0.596 units. Reinforcing factors also showed a significant positive influence ($\beta = 0.173$, $p < 0.001$), as did contributing (enabling) factors. These findings suggest that these factors play an important role in promoting exercise behavior among working-age individuals, consistent with Benjamin's (1997) behavioral theory. This theory emphasizes that human behavior does not occur randomly but results from the interaction between internal factors such as beliefs, attitudes, and motivation and external factors such as environmental, social, and cultural influences. Understanding these factors helps to predict and modify behavior appropriately within different contexts. This is also in line with the research of Songsin, N., et al. (2024), who conducted a study on the knowledge, attitudes, and exercise behaviors of health science students. A university found that knowledge about exercise is good. Attitude towards exercise is moderate, and exercise behavior is moderate. Attitude was statistically significantly correlated with the exercise behavior of health science students at the level of 0.05, and this is consistent with the research of Songsin, N., et al. (2023). Have a positive attitude and have high expectations. Perceptions and attitudes are positively correlated with expectations and are in line with the research of Kaenphet, P., & Samranjit, S. (2025), who conducted a study on factors related to people's exercise behavior. In the working age group, the area is responsible for the Ban Na Khao Sub-district Health Promoting Hospital. Khao Phanom District, Krabi Province The study identified the primary factors influencing perceptions of health conditions and attitudes towards exercise. Factors that are conducive to equipment and places for exercise, announcements of exercise policies, supplementary factors in terms of support from society and individuals, and access to information are related to the exercise behavior of people in the working age group. Statistically significant at the level of p-value < 0.05.

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