Relationship Between Health Self-Efficacy and Healthy Lifestyle among Young Adults in Malaysia

Nurul Izzah Md. Akhir[1], Junaidah Yusof[2], Nor Firdous Mohamed[1*]

[1]Department of Psychology, Faculty of Human Development, Universiti Pendidikan Sultan Idris, Perak, Malaysia.

[2]School of Human Resource Development and Psychology, Faculty of Social Sciences and Humanities, Universiti Teknologi Malaysia, Johor, Malaysia

***Corresponding Author**

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ABSTRACT

Objective: This study aimed to examine the relationship between health self-efficacy and healthy lifestyle behaviours among young adults in Malaysia. It specifically sought to explore how individuals' confidence in managing their health influences their engagement in behaviours such as regular physical activity, balanced nutrition, and other health-promoting practices. By investigating this association, the study aims to provide insights that can inform the development of targeted interventions and strategies to enhance self-efficacy and support the adoption of sustainable healthy lifestyles in this population.

Methods: A quantitative cross-sectional survey design was employed. Data were collected from 166 young adults in Perak, Malaysia using purposive sampling. Participants completed a self-administered questionnaire comprising socio-demographic items, the Health-Specific Self-Efficacy Scale (HSSES), and the Healthy Lifestyle Screening Tool (HLST). Descriptive statistics and correlation analyses were conducted.

Results: Descriptive analyses showed that male participants and those with tertiary education reported higher mean scores for health self-efficacy and healthy lifestyle behaviours compared to female participants and those with secondary education; however, these differences were not statistically significant. Correlation analysis revealed a moderate and statistically significant positive association between health self-efficacy and healthy lifestyle behaviours (r (164) = 0.568, $p < .001$). No significant differences were observed in health self-efficacy or healthy lifestyle behaviours based on gender or level of education.

Conclusion: Health self-efficacy was significantly associated with healthy lifestyle behaviours among Malaysian young adults. The findings highlight the importance of incorporating self-efficacy enhancing strategies in health promotion interventions targeting young adults. This study contributes to the limited empirical evidence in the Malaysian context and provides support for developing evidence-based approaches to encourage healthier lifestyle practices among young adults.

Keywords: health self-efficacy, health behaviour change, young adults

INTRODUCTION

Recent national statistics indicate that the leading causes of death in Malaysia remain predominantly health related, with ischaemic heart disease, cerebrovascular diseases, and pneumonia or lower respiratory infections consistently ranking among the top contributors to mortality (Department of Statistics Malaysia, 2025). These conditions are particularly prevalent among middle aged and older adults. Given the strong influence of lifestyle behaviours on health outcomes, adopting healthy habits during young adulthood is likely to produce more sustained benefits than initiating them later in life, when age related health decline may reduce their effectiveness

(Tsai et al., 2020; Sun et al., 2022). Early engagement in health promoting behaviours can slow biological ageing and improve life expectancy, and even modest lifestyle differences, particularly among individuals with genetic susceptibility, may accumulate over time to influence morbidity and premature mortality (Kankaanpää et al., 2022). Therefore, implementing lifestyle interventions during young adulthood is crucial for reducing the risk of chronic diseases such as cardiovascular disease, diabetes, and metabolic syndrome (Zhu et al., 2022).

Core aspects of a healthy lifestyle include eating a balanced diet, staying physically active, obtaining adequate sleep, and avoiding harmful habits (Kris-Etherton et al., 2021). While non-modifiable factors such as age, genetics, and sex contribute to disease risk, lifestyle modifications remain central to the prevention of chronic conditions (Kaminsky et al., 2022). Lifestyle behaviours are also influenced by socio-demographic factors, including gender, income, education, occupation, marital status, and place of residence (Mohd Talmizi et al., 2021; König et al., 2023). Men tend to be more physically active but are also more likely to engage in risky behaviours such as drinking, smoking, and unhealthy eating, whereas higher education is associated with healthier behaviours due to greater health knowledge and awareness (Ng et al., 2019; Magnani et al., 2018, Che Zulkifli, N. I., & Mohamed, N. F., 2020.

Psychological factors, particularly self-efficacy, play a crucial role in initiating and maintaining healthy behaviours. Self-efficacy refers to an individual's confidence in managing their actions and making health-promoting choices (Bandura, 1997). Individuals with high self-efficacy are more likely to adopt and sustain healthy routines, whereas those with lower self-efficacy often encounter difficulties in maintaining behaviours such as regular exercise or balanced eating (Lim et al., 2021). Theoretical models further emphasize the importance of self-efficacy in health behaviour.

The Theory of Planned Behaviour (TPB) posits that intentions are shaped by attitudes, social norms, and perceived behavioural control, with stronger intentions associated with positive attitudes, supportive social expectations, and greater confidence in performing behaviours (Ajzen, 1991). Perceived behavioural control closely aligns with self-efficacy, reflecting confidence in executing behaviours and influencing outcomes (Godin & Kok, 1996). Similarly, the Health Belief Model (HBM) highlights self-efficacy as a key mediator of health behaviours, suggesting that actions depend on perceived health risks and beliefs regarding behaviours that can mitigate those risks (Taylor, 2014). For instance, Sharifikia et al. (2019) found that an HBM-based educational program improved women's knowledge and beliefs about cancer warning signs, while even the control group showed minor improvements, likely due to exposure to questionnaires, media, or proactive information-seeking, demonstrating the model's influence on behaviour.

Despite evidence from other populations, research examining the relationship between self-efficacy and healthy lifestyle behaviours among Malaysian young adults remains limited. Most prior studies have focused on adolescents or university students in Turkey, primarily addressing weight management rather than broader healthy lifestyle practices (Açıkgöz Çepni & Kitiş, 2016; Bektas et al., 2021). This study aims to investigate the association between self-efficacy and healthy lifestyle behaviours among Malaysian young adults, providing insights to inform interventions that promote sustainable health habits in this population.

METHODOLOGY

Study Design and Participants

This study was ethically approved by Research Management and Innovation Centre (RMIC) Universiti Pendidikan Sultan Idris (reference number: 2022-0665-01). A quantitative cross-sectional study design was utilised. Data were collected using a hybrid approach that combined online surveys administered via Google Forms and paper-and-pencil questionnaires (Monzon et al., 2020). Participants were young adults aged 18–25 years residing in a small district in Perak, specifically Tanjong Malim. Purposive sampling was employed to ensure that participants met the inclusion criteria of age and residency, with no restrictions based on gender, ethnicity, educational level, or language proficiency (Denieffe, 2020).

Sample size estimation was conducted using G*Power version 3.1.9.7. With an assumed medium effect size (r = 0.30), a power of 0.95, and a significance level of 0.05, a minimum sample size of 138 participants was

required. To account for potential non-response or incomplete data, the target sample size was increased to 166 participants. Data collection was conducted primarily through face-to-face administration to facilitate participant recruitment and improve response rates. The questionnaires were administered in English and the data collection was carried out over a period of 3 months, starting from December 2022 until February 2023.

Instruments

Two self-administered questionnaires were used to assess participants' health self-efficacy and healthy lifestyle behaviours: the Health-Specific Self-Efficacy Scales (HSSES) and the Healthy Lifestyle Screening Tool (HLST).

Health-Specific Self-Efficacy Scales (HSSES)

Health self-efficacy was measured using the Health-Specific Self-Efficacy Scales developed by Schwarzer and Renner (2009). The HSSES consists of 13 items assessing three domains of health-related self-efficacy: nutrition self-efficacy, physical exercise self-efficacy, and alcohol resistance self-efficacy. Items are rated on a 4-point Likert scale ranging from 1 (very uncertain) to 4 (very certain), with higher scores reflecting stronger health self-efficacy beliefs. Previous validation studies have reported good internal consistency, with Cronbach's alpha coefficients ranging from 0.79 to 0.88 across the subscales (Schwarzer & Renner, 2009). Construct validity has been supported through significant associations with health-related intentions and behaviours.

Healthy Lifestyle Screening Tool (HLST)

Healthy lifestyle behaviours were assessed using the Healthy Lifestyle Screening Tool (HLST) developed by Kim and Kang (2019). The HLST comprises 36 items covering nine lifestyle domains: sunlight exposure, water intake, air quality, rest, physical activity, nutrition, temperance, family history, and physical condition. Responses are rated on a 4-point Likert scale ranging from 1 (strongly disagree) to 4 (strongly agree), with higher scores indicating healthier lifestyle practices. The HLST has demonstrated acceptable internal consistency, with a reported Cronbach's alpha of 0.71 (Kim & Kang, 2019). Evidence of validity has been established through expert content validation and factor analysis. A cut-off score of 98 has been suggested to differentiate healthier lifestyle patterns (Borillo et al., 2020).

Statistical Data Analysis

Data were analysed using the Statistical Package for the Social Sciences (SPSS) version 29. Incomplete responses were excluded prior to analysis. Descriptive statistics, including means and standard deviations, were used to summarise socio-demographic characteristics and key study variables. Pearson's correlation analysis was conducted to examine the relationship between health self-efficacy and healthy lifestyle behaviours. Independent samples of *t*-tests were used to identify differences in health self-efficacy and healthy lifestyle behaviours based on selected socio-demographic variables. Prior to performing the Pearson correlation and independent-samples t-test analyses, the underlying statistical assumptions were evaluated. The assumptions of normality, linearity, homogeneity of variance, and absence of extreme outliers were assessed through examination of descriptive statistics and graphical methods (e.g., scatterplots and distribution plots). The data did not indicate any substantial violations of these assumptions. Considering the sufficient sample size (n = 166), the application of parametric tests was deemed appropriate.

RESULTS

Socio-Demographic Characteristics

Descriptive analyses were conducted to examine the socio-demographic characteristics of the sample. Age, gender, and educational level were examined in this study, Frequencies and percentages for age, gender, and educational level are presented in Table 1. The mean age of 166 young adults was 21.43 years (SD = 1.82). Female participants comprised 71.1% of the sample (n = 118), while male participants accounted for 28.9% (n = 48). In terms of educational attainment, most participants had completed tertiary education (75.9%, n = 126), whereas 24.1% (n = 40) reported secondary education.

Table 1 Sample's socio-demographic profile (N=166)

Variable		n	Percentage, %
Age			M = 21.43
Gender	Men	48	28.9
	Women	118	71.1
Level of education	Secondary	40	24.1
	Tertiary	126	75.9

Health Self-Efficacy Level Among Young Adults in Malaysia

Participants' health self-efficacy was assessed using the Health-Specific Self-Efficacy Scales. Table 2 presents the descriptive statistics, including the mean (M), minimum, maximum, and standard deviation (SD). The mean health self-efficacy score among participants was 37.83 (SD = 7.13), with scores ranging from 18.00 to 52.00. Given that the theoretical midpoint of the scale is 39, the average score observed in this study indicates a moderate level of health self-efficacy among young adults in Malaysia.

Table 2 Summary of Health Self-Efficacy Levels (n = 166)

N	Minimum	Maximum	M	SD
166	18.00	52.00	37.83	7.13

Differences in Health Self-Efficacy by Gender

An independent sample *t*-test was conducted to examine differences in health self-efficacy between young adult women and young adult men. Table 3 presents the descriptive statistics, while Table 4 summarises the *t*-test results. Young adult men reported a slightly higher mean health self-efficacy (M = 39.29, SD = 7.34) than young adult women (M = 37.23, SD = 6.99); however, this difference was not statistically significant, t (164) = 1.699, p = .091. The effect size was small (d = 0.30), suggesting minimal practical difference between genders.

Table 3 Group sample difference

Gender	n	M	SD
Men	48	39.29	7.34
Women	118	37.23	6.99

Table 4 T-Test in health self-efficacy between young adult women and young adult men

Variables	t	df	p-value
Health self-efficacy between young adult women and young adult men	1.699	164	0.091

Note: p>0.05 is not statistically significant

Differences in Health Self-Efficacy by Educational Level

An independent sample *t*-test was conducted to examine differences in health self-efficacy between participants with secondary and tertiary education. Table 5 presents descriptive statistics, and Table 6 presents the *t*-test results. Participants with tertiary education reported slightly higher health self-efficacy (M = 37.68, SD = 7.29) compared to those with secondary education (M = 37.35, SD = 6.69); however, the difference was not statistically significant, t (164) = -0.483, p = .630. The effect size was negligible (d = 0.05), indicating minimal practical difference.

Table 5 Group sample difference

Levels of Education	n	M	SD
Secondary	40	37.35	6.69
Tertiary	126	37.98	7.29

Table 6 T-Test in health self-efficacy between young adults with different levels of education

Variable	t	df	P-value
Health self-efficacy between young adults with different levels of education	-0.483	164	0.630

Note: $p > 0.05$ is not statistically significant

Relationship Between Health Self-Efficacy and Healthy Lifestyle

Pearson's correlation analysis was conducted to examine the relationship between health self-efficacy and healthy lifestyle behaviours. Table 7 presents the correlation results. The analysis revealed a moderate, positive, and statistically significant correlation between health self-efficacy and healthy lifestyle, $r(164) = 0.568$, $p < .001$. This finding indicates that higher levels of health self-efficacy are associated with healthier lifestyle behaviours among Malaysian young adults. According to Cohen's 1988 guidelines, this represents a moderate-to-large effect size, highlighting the practical importance of self-efficacy in promoting healthy behaviours (Brydges, 2019).

Table 7 Relationship between health self-efficacy and healthy lifestyle

Variables	N	M	SD	1	2	P-value
Self-efficacy	166	37.825	7.132	-	.568	-
Healthy Lifestyle	166	105.849	11.292	.568	-	0.000***

***Correlation is significant at the level 0.01 level (2-tailed)

DISCUSSION

This study found that Malaysian young adults reported a moderate level of health self-efficacy, suggesting that participants generally felt reasonably confident in managing their health-related behaviours. No significant gender differences were observed, although men reported slightly higher self-efficacy than women ($t(164) = 1.699$, $p = .091$, $d = 0.30$), indicating minimal practical difference. This contrasts with some previous studies that reported gender disparities in self-efficacy (Lim et al., 2021; Amiri, Chaman, & Khosravi, 2019), which may reflect Malaysia's cultural and contextual factors, such as shared health responsibilities and rising health awareness among both men and women. Behavioural patterns such as women's preference for healthier foods and men's higher levels of physical activity may also contribute to balancing self-efficacy between genders (Grzymisławska et al., 2020; Sood et al., 2019).

Participants with tertiary education showed slightly higher self-efficacy than those with only secondary education, but the difference was not statistically significant ($t(164) = -0.483$, $p = .630$, $d = 0.05$). While education can enhance health literacy, the ability to access, understand, and apply health information likely plays a more critical role in shaping self-efficacy and health behaviours (Liu et al., 2020; Uysal et al., 2019; Vamos et al., 2020). Participation in health-related programs can also improve both literacy and self-efficacy by offering opportunities to apply knowledge in daily life (Amiri, Chaman, & Khosravi, 2019; Uysal et al., 2019).

A moderate, positive, and significant correlation was observed between health self-efficacy and healthy lifestyle behaviours ($r(164) = 0.568$, $p < .001$, $r^2 = 0.32$), suggesting that self-efficacy accounts for approximately 32% of the variance in lifestyle behaviours. This finding aligns with prior research showing that higher self-efficacy boosts motivation, confidence, and adherence to health-promoting behaviours (Abbasi et al., 2020; Jiang et al., 2019). It also supports theoretical frameworks such as the Theory of Planned Behaviour (TPB) and the Health Belief Model (HBM), which highlight self-efficacy as a key factor influencing perceived benefits, recognition of risks, and responses to cues for action (Saghafi-Asl et al., 2020; Taylor, 2014).

These results have practical implications for interventions targeting young adults. Although no significant differences were observed by gender or education, social and environmental barriers, such as limited public spaces for exercise or insufficient social support may still hinder healthy behaviours, particularly among women

(Cheng et al., 2020; Wilson et al., 2021). Programs that enhance self-efficacy, health literacy, and supportive environments could increase engagement in healthy lifestyle behaviours.

This study has several limitations. Women (71.1%) and tertiary-educated participants (75.9%) were overrepresented, which may limit the generalizability of the findings. Additionally, the sample was drawn from a single district in Perak, and self-reported measures may be influenced by social desirability bias.

Future research should aim for more balanced samples in terms of gender and education, include participants from multiple regions, and consider longitudinal or intervention designs to clarify causal relationships. Including health literacy as a variable could also provide deeper insights into how knowledge and confidence work together to support healthy lifestyle behaviours (Bektas et al., 2021).

In conclusion, this study highlights a moderate, positive association between health self-efficacy and healthy lifestyle behaviours among Malaysian young adults. While differences by gender and education were minimal, self-efficacy appears to play a clear role in supporting healthier behaviours, underscoring the importance of fostering both self-efficacy and health literacy to promote sustainable healthy lifestyles.

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