

The Role of Gender in Shaping Health Behaviours in Adolescents: Insights from the Health Promoting Lifestyle Profile

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Abstract

Lifestyle encompasses a set of activities aimed at maintaining and promoting health while preventing diseases. These include following a proper diet, balancing rest and activity, exercising regularly, controlling body weight, avoiding smoking and alcohol consumption, and enhancing immunity. Adolescence, a period marked by significant physiological and psychological changes, profoundly influences an individual's lifestyle and health behaviours, shaping their health in adulthood.

Objectives: The primary objective of this study is to compare the Health Promoting Lifestyle Profile (HPLP) across genders.

Methodology: The study sample consisted of 610 students (303 males and 307 females). The Health Promoting Lifestyle Profile II (HPLP-II), developed by Walker SN, Sechrist KR, and Pender NJ (1987), was used to assess health-promoting behaviours. Data analysis was performed using SPSS 26.0, employing the following statistical techniques: Descriptive statistics and independent sample t-test.

Results: The findings revealed significant gender differences in Health Responsibility, Physical Activity, and Stress Management. However, no significant differences were observed in Nutrition, Spiritual Growth, and Interpersonal Relations.

Conclusion: The study highlighted that participant scored higher than average in most health-promoting lifestyle variables, with the highest mean scores observed in Spiritual Development and Interpersonal Relationships. Gender comparisons showed that females scored higher in Interpersonal Relations, while differences were evident in Health Responsibility, Physical Activity, and Stress Management between males and females.

Introduction

Over the past two decades, non-communicable chronic diseases have emerged as the leading threats to human health, surpassing infectious diseases and contributing to an increase in disabilities (WHO 2020). A noticeable decline in the age of individuals suffering from chronic diseases has been observed, with abnormal metabolism and early diagnoses becoming more common among younger populations (National Research Council, US 2013). Chronic diseases are largely caused by long-term unhealthy habits and behaviours (Green, L. W., & Hiatt, R. A. 2009). Research has shown that poor dietary habits and sedentary lifestyles are significant factors contributing to obesity, which in turn increases the incidence and mortality of chronic diseases (Cecchini, M., et al 2010). As a result, chronic disease prevention and control have become central to modern healthcare efforts. A study in the United States revealed that individuals with lower-risk lifestyles, including non-smoking, maintaining a healthy weight, staying physically active, consuming alcohol in moderation, and eating a balanced diet, tend to live longer (Li, Y., et al 2018). Promoting health education and encouraging people to adopt

healthier lifestyles are essential for extending life expectancy and improving overall well-being.

Lifestyle refers to the everyday activities and behaviours that individuals adopt, which are influenced by social norms and can impact their health (Tol A, et al 2013). Through their lifestyle choices, individuals aim to maintain and improve their health while preventing diseases. This includes maintaining a proper diet, balancing rest and activity, exercising, managing body weight, avoiding smoking and alcohol, and protecting themselves from diseases through immunization. Together, these behaviours constitute a person's lifestyle (Phipps WJ, 2003). Achieving good health requires promoting a healthy lifestyle (Hackett TP, et al 1969).

A health-promoting lifestyle (HPL) is viewed as a positive approach to life, involving various health-enhancing behaviours such as self-actualization, health responsibility, exercise, nutrition, interpersonal support, and stress management (Palank CL 1991, Walker SN et al 1987). Research from Taiwan and other countries indicates that university students generally demonstrate strong self-actualization and interpersonal support, though there is a need for improvement in areas such as stress management, nutrition, exercise, and health responsibility (Chao, DP. 2023). Health-promoting behaviour is a central element of health promotion, garnering significant attention in both research and practical programs (Plank CL 2007). An individual's perspective on health, shaped by their health-promoting behaviours, is essential to their overall well-being (Plank CL 2007).

In this context, health is defined as the realization of human potential, the maintenance of balance, and the achievement of goals in harmony with one's environment (Dunn HL 2001), with the World Health Organization recommending the pursuit of positive qualities for optimal health. The health promotion lifestyle is described by Walker as "a multi-dimensional pattern of perceptions and activities initiated by self-motivation that fosters the persistence and enhancement of one's health and personal growth" (Walker, S. N. et al 1990).

Adolescence is a period marked by significant physiological and psychological changes that influence an individual's lifestyle and health behaviours, which in turn can have lasting effects on their health in adulthood (Hayes, G., 2019). The guiding research question for this study was: "What are the gender differences in health-promoting lifestyle profiles among adolescents in Kerala?"

Methodology

Objectives of the study

The main objectives of the study are to compare Health Promoting Lifestyle Profile across genders.

Participants

The sample comprised 610 (303 males and 307 females) students from Malabar region of Kerala. Age between 14 and 19.

Measures

The Health Promoting Lifestyle Profile II (HPLP-II), developed by Walker SN, Sechrist KR, and Pender NJ (1987), consists of 52 items rated on a four-point Likert scale, with responses ranging from 1 (Never) to 4 (Routinely). To calculate an overall health-promoting lifestyle score, the mean of an individual's responses across all 52 items is computed. Additionally, six subscale scores are obtained by averaging the responses to the items within each subscale. Using means instead of sums is recommended to maintain the 1 to 4 scale metric and enable meaningful score comparisons. The subscales included in the profile are: Health Responsibility, Physical Activity, Nutrition, Spiritual Growth, Interpersonal Relations, and Stress Management.

Statistical Analysis

SPSS 26.0 software was used for data analysis in this study. The statistical analysis includes 1) Descriptive statistics; 2) independent sample t-test;

Result

Before calculating gender differences, the researcher calculates the descriptive statistics of the data. The result is shown in Table 1.

Table 1: Descriptive statistics of the health-promoting lifestyle.

	Mean	Std. Dev	Variance	Skewness	Kurtosis
Health Responsibility	20.52	4.79	22.92	.11	-.38
Physical Activity	20.01	4.90	23.98	-.16	-.63
Nutrition	23.68	4.34	18.84	-.13	-.45
Spiritual Growth	27.48	3.82	14.61	-.37	-.23
Interpersonal Relations	28.43	3.93	15.49	-.39	-.43
Stress Management	22.97	3.21	10.32	.00	.14

Table 1 shows the mean, standard deviation, skewness, and kurtosis of health-promoting lifestyle variables. From the table, it can be explained that the Health Responsibility variable obtained a mean of 20.52 ± 4.79 , skewness .11, kurtosis -.38. The Physical Activity variable obtained a mean of 20.01 ± 4.90 , skewness -.16, kurtosis -.63, Nutrition variable obtained a mean of 23.68 ± 4.34 , skewness -.13, kurtosis -.45, Spiritual Growth variable obtained a mean of 27.48 ± 3.82 , skewness -.37, kurtosis -.23, Interpersonal Relations variable obtained a mean of 28.43 ± 3.93 , skewness -.39, kurtosis -.43, Stress Management variable obtained a mean of 22.97 ± 3.21 , skewness .00, kurtosis .14.

Gender Differences

We used an independent sample t-test to explore the gender differences in health-promoting lifestyle variables. The results are shown in Table 2.

Table 2: T-test of different genders on the health-promoting lifestyle variables.

		Paired Difference					
				95% Confidence			

		Mean	Std. Error mean	interval of the difference		t	df	Sig. (2 Tailed)
				Lower	Upper			
Health Responsibility	Female	19.85	4.58	-2.10	-.59	-3.51	608	.00
	Male	21.19	4.90					
Physical Activity	Female	18.29	5.04	-4.19	-2.74	-9.34	608	.00
	Male	21.75	4.07					
Nutrition	Female	23.45	4.28	-1.16	.22	-1.33	608	.18
	Male	23.92	4.39					
Spiritual Growth	Female	27.51	3.94	-.55	.66	.18	608	.85
	Male	27.92	3.71					
Interpersonal Relations	Female	28.73	3.85	-.03	1.22	1.88	608	.06
	Male	28.13	4.00					
Stress Management	Female	22.70	3.30	-1.06	-.04	-2.11	608	.03
	Male	23.25	3.11					

In Table 2, there is a significant difference between men and women in Health Responsibility & Physical Activity ($p < 0.01$) and Stress Management ($p < 0.05$). There were no significant differences between men and women in Nutrition, Spiritual Growth and Interpersonal Relations ($p > 0.05$). But the mean score difference shows that females are slightly higher in Interpersonal Relations. Men scored higher in Health Responsibility, Physical Activity, Nutrition, Spiritual Growth, and Stress Management.

Discussion

Highest scores were recorded in spiritual development and interpersonal relationships supported by Alzahrani, S. H., et al. (2019).

Gender differences were significantly associated with two subscales of the HPLP-II. This study, consistent with the findings of Alzahrani, S. H., et al. (2019), revealed significant differences between male and female students in Health Responsibility, Physical Activity, and Stress Management.

Female students scored significantly higher than their male counterparts in the Interpersonal Relations subscale. This aligns with the findings of Ghanim, M., et al. (2021) and may be attributed to females' greater aptitude for building relationships, their central role in caring for family members, and their ability to strengthen familial ties. Conversely, male students demonstrated significantly higher scores in the Physical Activity subscale, a result supported by Wei C-N, et al. (2012).

Males also scored higher in Stress Management, with a significant difference compared to females. However, this finding contrasts with the results of Ghanim, M., et al. (2021). Regarding Spiritual Growth and Nutrition, the results partially align with and diverge from the findings of Ghanim, M., et al. (2021), reflecting the complexity of gender-based variations in these aspects of health-promoting behaviours.

Conclusion

- The study revealed that the mean scores for Spiritual Development and Interpersonal Relationships were notably high, with other variables also exhibiting above-average mean scores.
- Gender differences indicated significant variation in Health Responsibility, Physical Activity, and Stress Management.
- Females scored higher in Interpersonal Relationships.
- Males outperformed females in Health Responsibility, Physical Activity, Nutrition, Spiritual Growth, and Stress Management.

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