

Health Promoting Behaviours among Adolescents: Role of Optimism and Self-Efficacy

Vidhu Mohan and Sandeep Kumar

Punjabi University, Patiala

Health promoting behaviours can be defined as the manifestation of the inherent human drive towards achieving optimal well-being, personal satisfaction, and meaningful existence. The adoption of health promoting behaviours by adolescents significantly influences their physical and psychological well-being not only in their youth but also in their later stages of life. Various studies have indicated that factors such as motivation, self-confidence, locus of control, and sense of coherence play a critical role in shaping an individual's inclination towards health promoting behaviours. Against this backdrop, the current research endeavors to explore the association of health promoting behaviours with optimism and self-efficacy, among adolescents. The study also aimed at assessing gender differences in health promoting behaviours, optimism and self-efficacy. Optimism reflects a positive outlook on both current and future life circumstances, while self-efficacy denotes an individual's confidence in their ability to accomplish a specific task. The research data encompassed 142 adolescents (comprising 94 females and 48 males) aged between 14 and 18 years. The participants completed assessments including the adolescent lifestyle profile-revised (Gaete et al., 2019), optimism scale (Pedrosa et al., 2015), and general self-efficacy scale (Schwarze & Jerusalem, 2000). Findings from the study revealed a positive correlation of various dimensions of health promoting behaviours with optimism and self-efficacy. Furthermore, optimism and self-efficacy have been found to be robust predictors of such behaviours. The findings have revealed that males exhibited higher levels of health responsibility, physical activity, nutrition, and positive life perspectives dimensions of health promoting behaviours as compared to females.

Keywords: Health Promoting Behaviours, Optimism, Self-Efficacy, Adolescents

Adolescence is a developmental stage distinguished by exploration, experimentation, and risk-taking behaviours, surpassing other life phases in intensity. Various risky health behaviours, such as substance abuse, premature sexual activity, hazardous driving, unwarranted aggression etc. have the potential to impact the psychosocial development of adolescents. Positioned between childhood and adulthood, spanning ages 10 to 19, this phase is pivotal for human growth and serves as a cornerstone for overall well-being. The adolescent period is marked by rapid physical transformations, psychosocial adjustments, and cognitive advancements,

influencing aspects like cognition, emotions, decision-making, and social interactions. While typically viewed as a period of good health, adolescence is also shadowed by concerns like disease, significant losses, and severe accidents. Throughout this developmental phase, adolescents establish behavioural tendencies related to nutrition, substance consumption, physical exercise, and sexual conduct, which can either safeguard their well-being or jeopardize it. Adolescents necessitate an array of informative tools to facilitate their healthy growth and development, encompassing age-appropriate comprehensive sexual education, opportunities to acquire life skills,

and environments that are secure, encouraging, impartial, and fitting. The well-being of this age group falls under the shared duty of healthcare practitioners, policymakers, and psychologists. Possessing a positive mindset, adeptness in managing life stressors, self-assurance, belief in oneself, and a commitment to appropriate conduct can significantly enhance health promoting behaviours. Against this backdrop, the current research endeavors to explore the association of health promoting behaviours with optimism and self-efficacy, among adolescents. A concise overview of the variables is provided below:

The definition of health promotion by the world health organization involves assisting individuals in gaining control over their health and its determinants to enhance their well-being. Health promoting behaviours benefit individuals, families, communities, states, and nations by improving and sustaining health. The advantages of health promoting habits include disease prevention, reduced morbidity, enhanced quality of life, and decreased healthcare costs (Mo & Winnie, 2010). As a result, these behaviours are typically assessed to determine individuals' health status (Wei et al., 2012). A health promoting lifestyle encompasses various self-initiated feelings and behaviours that aim at enhancing an individual's health, self-actualization, and self-accomplishment (Dunne et al., 2018). The study at hand focuses on behaviours such as health responsibility, physical activity, nutrition, positive life perspectives, interpersonal relationships, stress management, and spiritual health. These behaviours assist individuals in living a fulfilled life, society in promoting well being and happiness, and nations in cutting down medical expenses by prioritizing disease prevention and health promotion at different levels. Identifying strengths and weaknesses is crucial to achieving the objectives of health promotion

activities (Pender et al., 2006). Health models serve as guides for healthcare professionals to comprehend individuals' health status, habits, and to intervene in promoting health promoting behaviours.

Optimism, a positive psychological aspect, is characterized by an overall expectation of positive outcomes in future events (Scheier & Carver, 1985). While optimism can be viewed as a stable personality trait, it is also subject to modification based on experiences or targeted interventions like future-oriented writing (Mann, 2001). Research consistently indicates that individuals with high levels of optimism are more inclined to adopt health related behaviours such as maintaining a healthy diet, achieving a healthy body mass index (BMI), engaging in physical activity, and refraining from smoking (Kelloniemi et al., 2005). Despite the possibility of optimism leading to risky behaviours due to an optimistic outlook on outcomes, existing evidence predominantly supports a positive relationship between optimism levels and health promoting behaviours (Weinstein, 1989). Optimism has been identified as a significant factor in influencing health behaviours, with highly optimistic individuals demonstrating better coping mechanisms in stressful situations and experiencing fewer physical health issues (Boehm et al., 2018; Conway et al., 2017). Studies involving undergraduate students have revealed a positive correlation between optimism and the adoption of health promoting practices (Mulkana & Hailey, 2001). Throughout various spheres like academia, employment, and politics, optimism has been associated with success (Taylor & brown, 1988). Its impact on both mental and physical well-being has garnered attention (Scheier & Carver, 1985), with predictions of favorable overall health (Maruta et al., 2002), lower mortality rates (Giltay et al., 2004), reduced cardiovascular deaths (Kubzansky et al., 2001), and fewer depressive symptoms in later life (Giltay et

al., 2006). Several theories have been proposed to explain optimism's role, including its potential as a buffer against negative emotions stemming from social challenges, positioning optimism as an indicator of resilience (Adler, 2007; Gallo & Matthews, 2003). Optimists may be predisposed to embracing behaviours that foster well-being and a positive trajectory during illness (Ironson, 2008). If such a correlation between a healthy lifestyle and optimism were established early in life, the cumulative impact could be substantial (Giltay et al., 2007).

Self-efficacy refers to individuals' beliefs in their capacity to exert control over their functioning and the events influencing their lives (Bandura, 1986). A heightened sense of self-efficacy contributes to motivation, psychological wellness, and personal achievements. As posited by Bandura, the originator of this concept, self-efficacy is shaped by prior experiences, observations, social persuasions, and emotional responses. Individuals with elevated self-efficacy exhibit enhanced task performance, persistence in the face of challenges, and improved resilience when encountering adverse circumstances. Individuals with low self-efficacy may experience anxiety, despondency, and a restricted outlook on life, whereas those with high self-efficacy enjoy confidence, drive, and optimistic outlooks due to the sense of assurance and composure it instills when tackling demanding tasks and endeavors. Self-efficacy assumes a pivotal role in task performance and achievement. It is widely agreed upon that self-efficacy stands out as one of the most crucial and modifiable predictors of health promoting behaviours (Acton, 2002; Becker et al., 1989; Bortoff et al., 1996; Duffy, 1997; Sohng et al., 2002). In a study by Weitzel and Waller (1990), self-efficacy emerged as the most potent predictor of adopting a health promoting lifestyle for Hispanic, African

American, and Caucasian populations. Individuals with disabilities were more inclined to embrace health promoting behaviours in the presence of perceived self-efficacy (Stuifbergen & Becker, 1994). Wu and Pender's (2005) research findings suggest that gender, social support, modeling, self-efficacy, and perceived benefits and barriers to physical activity directly and indirectly influence the engagement in physical activity among Taiwanese adolescents. Grembowski et al., (1993) discovered that older adults with high self-efficacy demonstrated reduced health risks across all behaviours and better overall health.

The study was also assessing the role gender in health promoting behaviours, optimism and self-efficacy. Gender plays a vital role in explaining these behaviours. Various researches have been conducted to study the role gender in health promoting behaviours, optimism and self-efficacy. Women scored higher on health responsibility, interpersonal relationships and nutrition than men (Johnson, 2005). A study was conducted on 311 showed that girls practiced fewer health promoting behaviors than boys (Scoloveno, 2017). Men were found to exhibit higher levels of optimism compared to women; nevertheless, they were also discovered to have a greater tendency to hold inaccurate beliefs regarding the future economic landscape (Bjuggren & Elert, 2019). Another study was conducted on 193 adolescents to find out the gender differences on optimism and self esteem, found that males scored higher on optimism as well as self esteem than females (Puskar et al., 2010). In contrast, males showed higher levels of self-efficacy in mathematics, computer studies, and social sciences when compared to females (Huang, 2013).

Regarding studies on health promoting behaviours in Indian adolescents, the literature review indicates investigations on health promoting behaviours and optimism

(KN et al., 2021; Mishra, 2013); Health promoting behaviours and self-efficacy (Venkataraman et al., 2012; Anand & Kumar, 2013). However, there is a dearth of studies assessing association of health promoting behaviours with optimism and self-efficacy among adolescents in Punjab. Hence, it was thought crucial to explore the relationship among these variables so that recommendations for interventions with respect to adolescent's health can be made.

Various dimensions of health promoting behaviours assessed in the present study are health responsibility, physical activity, nutrition, positive life perspectives, interpersonal relationships, stress management and spiritual health.

Objectives

1. To assess the relationship between the dimensions of Health Promoting Behaviours and Optimism.
2. To assess the relationship between the dimensions of Health Promoting Behaviours and Self-Efficacy
3. To assess the role of Optimism in predicting Health Promoting Behaviours.
4. To assess the role of Self-Efficacy in predicting Health Promoting Behaviours.
5. To assess gender differences on the dimensions of Health Promoting Behaviours, Optimism, and Self-Efficacy.

Hypotheses

1. There would be a positive relationship between the dimensions of Health Promoting Behaviours and Optimism.
2. There would be a positive relationship between the dimensions of Health Promoting Behaviours and Self-Efficacy.
3. Optimism would positively predict Health Promoting Behaviours.

4. Self-Efficacy would positively predict Health Promoting Behaviours.
5. The following gender differences would be observed:
 - 5a. There would be significant gender differences on the dimensions of Health Promoting Behaviours
 - 5b. There would be significant gender differences on Optimism.
 - 5c. There would be significant gender differences on Self-Efficacy.

Method

The aim of the study was to explore the association of health promoting behaviours with optimism and self-efficacy, among adolescents. The sample for the investigation comprised of 142 adolescents (94 female and 48 male students were included) in the age range of 14 -18 years selected from various colleges of Patiala (Punjab). Prior informed consent of the participants and respective principles was taken. Correlational design was used to assess the relationship between these behaviours under study.

Adolescent lifestyle profile-revised 2 (ALP-R2) (Gaete et al., 2019): The questionnaire comprises of 44 statements. It has close-ended statements and each statement response is rated on 4-point likert scale, from 1 (Never) to 4 (Always). ALP-R2 has 7 subscales: Health Responsibility, Physical Activity, Nutrition, Positive life perspective, Interpersonal relationships, Stress Management and Spiritual health. The Cronbach's alpha reliability for total scale is 0.92. Cronbach's alpha's for its sub-scales is: Health responsibility (0.82), Physical activity (0.77), Nutrition (0.68), Positive life perspective (0.81), Interpersonal relationships (0.76), Stress management (0.65), and Spiritual health (0.82).

Optimism scale (Pedrosa et al., 2015): The optimism scale assesses the dispositional optimism. The scale has 9 items. A 5 point likert scale is used to get the responses on the scale. The range of the scale is 1 - 5. 1 (1 = Strongly Disagree; to 5 = Strongly Agree). The maximum score on this scale could be 45 and minimum score 9. Cronbach's alpha (α), and Composite Reliability (CR) should be above .70, while the CR should be above .50.

General self-efficacy scale (GSE) (Schwarzer & Jerusalem, 2000): It's a self report measure of self-efficacy, consists of 10 items. In this scale responses are rated on a 4-point likert-scale ranging from 1(Not at all true) to 4 (Exactly true). For the GSE, total score ranges between 10 and 40, with a higher score indicating more self-efficacy. The internal reliability for GSE on Cronbach's alpha between 0.76 and 0.90.

Results and Discussion

Table 1. Association of Health Promoting Behaviours with Optimism and Self-Efficacy, among Adolescents

	OPT	SE	HR	PA	N	PLP	IR	SM	SH
OPT	1								
SE	.52**	1							
HR	.34**	.41**	1						
PA	.39**	.37**	.51**	1					
N	.23**	.38**	.59**	.46**	1				
PLP	.52**	.53**	.48**	.41**	.27**	1			
IR	.35**	.38**	.31**	.49**	.19*	.51**	1		
SM	.49**	.44**	.55**	.42**	.42**	.56**	.51**	1	
SH	.38**	.27**	.54**	.44**	.41**	.45**	.41**	.43**	1

** Correlation is significant at the 0.01 level. * Correlation is significant at the 0.05 level.

OPT – Optimism, SE – Self-Efficacy, HR – Health Responsibility, PA – Physical Activity, N – Nutrition, PLP – Positive Life Perspectives, IR – Interpersonal Relationships, SM – Stress Management, SH – Spiritual Health.

In order to find out the association of health promoting behaviours with optimism and self-efficacy, Pearson product moment was used. Optimism was a positive relationship with all the dimensions [health responsibility ($r = 0.34^{**}$, $p < 0.01$), physical activity ($r = 0.39^{**}$, $p < 0.01$), nutrition ($r = 0.23^{**}$, $p < 0.01$), positive life perspectives ($r = 0.52^{**}$, $p < 0.01$), interpersonal relationships ($r = 0.35^{**}$, $p < 0.01$), stress management ($r = 0.49^{**}$, $p < 0.01$) and

spiritual health ($r = 0.38^{**}$, $p < 0.01$)]of health promoting behaviours.

Self-efficacy also shared a positive relationship with all the dimensions [health responsibility ($r = 0.41^{**}$, $p < 0.01$), physical activity ($r = 0.37^{**}$, $p < 0.01$), nutrition ($r = 0.38^{**}$, $p < 0.01$), positive life perspectives ($r = 0.53^{**}$, $p < 0.01$), interpersonal relationships ($r = 0.38^{**}$, $p < 0.01$), stress management ($r = 0.44^{**}$, $p < 0.01$) and spiritual health ($r = 0.27^{**}$, $p < 0.01$)]of health promoting behaviours.

Table 2. Model summary of multiple regression for Optimism and Self-Efficacy in Health Promoting Behaviours.

Model	B	Std. Error	Beta	t	Sig.	R ²	F	Sig. F
Optimism	1.094	.256	.335	4.274	.000	0.38	42.33	.000
Self-Efficacy	1.340	.284	.370	4.725	.000			

Predictors: Optimism and Self-efficacy

Dependent Variable: Health Promoting Behaviours

Table 2 showed Optimism significantly contributed (Beta = 0.33**, p < .01) in health promoting behaviours among adolescents. Self-efficacy was also significantly contributed (Beta = 0.37**, p < .01) in health promoting behaviours among adolescents. Both optimism and self efficacy explain 38 percent variance in health promoting behaviours.

Table 3. t test for gender differences in the dimensions of Health Promoting Behaviours

Variable	Gender	Mean	SD	N	t	p
Health Responsibility	Male	19.65	4.66	48	2.63	.008
	Female	17.65	3.96	94		
Physical Activity	Male	18.85	3.39	48	4.65	.000
	Female	16.02	3.44	94		
Nutrition	Male	19.19	3.96	48	2.74	.007
	Female	17.45	3.35	94		
Positive Life Perspectives	Male	21.23	2.83	48	1.82	.071
	Female	20.18	3.43	94		
Interpersonal Relationships	Male	20.40	2.89	48	.06	.947
	Female	20.36	2.92	94		
Stress Management	Male	19.31	3.06	48	.94	.347
	Female	18.79	3.17	94		
Spiritual Health	Male	17.06	5.62	48	1.37	.171
	Female	16.10	5.56	94		

Table 3 showed the gender differences on the dimensions health promoting behaviours. There were significant gender differences on health responsibility (t = 2.63**, p < 0.01), physical activity (t = 4.65**, p < 0.01), nutrition (t = 2.74**, p < 0.01), and positive life perspectives (t = 1.82*, p < 0.05)

but there were no significant gender differences on interpersonal relations (t = .06), stress management (t = .94), and spiritual health (t = 1.37).

Table 4. t test for Gender differences in Optimism and Self-Efficacy.

Variable	Gender	Mean	SD	N	t	p
Optimism	Male	34.67	5.62	48	0.329	0.743
	Female	34.34	5.56	94		
Self-Efficacy	Male	31.83	5.42	48	1.526	0.129
	Female	30.48	4.77	94		

Table 4 showed a comparison of means between males and females on optimism and self-efficacy. The significance of the differences between means was checked by 't' test. There were no significant differences ($t = 0.329$) between males ($M = 34.67$, $SD = 5.62$) and females ($M = 34.34$, $SD = 5.56$) on optimism. Similarly, there were no significant differences ($t = 1.526$) between males ($M = 31.83$, $SD = 5.42$) and females ($M = 30.48$, $SD = 4.77$) on self-efficacy. Males have slightly higher mean scores on optimism and self-efficacy than females.

Discussion

The research objective was to examine the associations among health promoting behaviours, optimism, and self-efficacy. The findings demonstrated a positive correlation between optimism and health promoting behaviours, optimism predicted health promoting behaviours positively (Table no. 2). These findings align with the first and the third hypotheses of the study. These findings indicate that attitude plays an important role in one's perception and practice of health related behaviours. An optimistic attitude is linked with health promotion. These finding align with previous researches. A study conducted on 120 college students illustrated a positive link between optimism and health behaviours, people who have optimistic perspective towards life also engaged in health behaviours (Mulkana & Hailey, 2001). Another study (Kim et al., 2017) found that women with higher optimism reported superior physical and mental health compared to those with lower scores.

Optimism instills hope in an individual which further helps him in retaining trust in his ability to take steps to practice behaviours that promote health. Hence, it is essential that adolescents should be encouraged to adopt a positive attitude in life.

The study also found a positive relationship between self-efficacy and health promoting behaviours and significant role of self-efficacy in predicting health promoting behaviours among adolescents. This is consistent with previous literature and the second and the fourth hypotheses of the study. This means that if one has beliefs in one's abilities to carry out health related tasks/activities, he is more likely to succeed in such tasks. Having high self-efficacy can help a person in dealing with stressful life events more effectively and cultivate health behaviours. Hence, Persons with high self-efficacy are more likely to engage in health behaviours as compared to persons with low self-efficacy. A study was conducted on 162 college students with the aim to assess the role of health value, social support, and self-efficacy in the health promoting lifestyles. It found that self-efficacy was positively associated with health promoting lifestyle (Jackson & Beauchamp, 2010).

It was hypothesized that there would be significant gender differences in health promoting behaviours, optimism and self-efficacy. However, the findings reveal that there was no significant gender difference in optimism and self-efficacy. It could be because of the nature of the sample. The

participants belonged to similar background and environment having a common exposure to various life events. Thus, they reported similar levels optimism as well as self-efficacy. The review of literature gives mixed evidence on gender differences in optimism and self-efficacy. The findings of this research align with previous studies that have reported no significant gender variations on optimism (Naik & Yadav, 2017; Akhtar & Saleem, 2020) and are contrary to the studies that have suggested that males exhibit higher levels of optimism than females (Khosla, 2021).

Significant gender disparities were observed in health responsibility, physical activity, nutrition, and positive life perspectives (dimensions of health promoting behaviours). The findings lead us to infer that males in present sample engage more in outdoor and sports activities, and are more conscious of their diet and nutrition intake and act more responsibly towards to health behaviours as compared to females. No significant gender differences were found in stress management, interpersonal relationships and spiritual health dimensions of health promoting behaviours. This means that when it comes to coping with stress, developing and maintaining social relations and spiritual health, females outshine males. Findings get support from research (Abdolkarimy et al., 2017) that report males scoring higher on health promoting behaviours than females.

Conclusion

The finding of the present study significant implications in area of adolescent's health and counseling. In order to promote health behaviours among adolescents, it is essential that they should be trained to think positively and believe in their abilities to carry out various tasks. This can be along way in promoting health and preventing diseases.

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Vidhu Mohan, PhD, Punjabi University, Patiala

Sandeep Kumar, Punjabi University, Patiala