

FACTORS AFFECTING THE PRACTICE OF HEALTH PROMOTING BEHAVIOR AMONG NURSING STUDENTS

Samina Inayat^{*1}, Anjum Rashid², Ayesha Haroon³, Iram Shehzadi⁴

^{*1, 3, 4}Post RN BSN Students, Shaikha Fatima Institute of Nursing and Health Sciences Lahore.

² Vice Principal Shaikha Fatima Institute of Nursing and Health Sciences Lahore.

¹m.abdullah778833@gmail.com, ³ayesh9824@gmail.com

⁴ramshahzadi.nurse@gmail.com

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Corresponding Author: *

Samina Inayat

Abstract

Background:

Health-promoting behaviors are essential for maintaining physical, mental, and social well-being, particularly among nursing students who are future healthcare providers. Despite having knowledge about health promotion, many nursing students face challenges in adopting and sustaining healthy lifestyles due to academic pressures, stress, and environmental factors. Understanding these factors is crucial to design interventions that enhance students' well-being and professional competence.

Aim:

This study aimed to identify and analyze the factors affecting the practice of health-promoting behaviors among nursing students.

Methods:

A descriptive cross-sectional design was used. The study was conducted at Shaikha Fatima Institute of Nursing & Allied Health Sciences Lahore, with a total population of 280 nursing students. Using the Raosoft sample size calculator, 163 participants were selected through convenience sampling. Data were collected using a structured, self-administered questionnaire assessing demographic characteristics, knowledge, attitude, and practice of health-promoting behaviors. Descriptive statistics, including frequency, percentage, mean, and standard deviation, were computed using SPSS version 27.

Results:

The study revealed that nursing students had a moderate level of health-promoting behavior overall. Internal factors such as personal motivation, self-efficacy, and knowledge significantly influenced students' engagement in healthy practices. External factors, including academic workload, social support, and availability of health resources, also played a substantial role. Stress, time constraints, and limited access to recreational facilities were identified as barriers to adopting healthy behaviors.

Conclusion:

Both internal and external factors significantly impact nursing students' health-promoting behaviors. Interventions such as health education programs, counseling, and supportive institutional policies are recommended to enhance students' well-being, improve their lifestyle habits, and foster long-term professional competence.

1. INTRODUCTION:

Health-promoting behavior refers to actions that individuals perform to improve or maintain their physical, psychological, and social well-being, including healthy eating, regular physical activity, stress management, health responsibility, interpersonal relations, and spiritual growth (Pender et al., 2015). Nursing students are individuals enrolled in professional nursing education programs who are preparing to provide health care services in clinical settings (Melnik et al., 2018). Factors affecting health-promoting behavior include personal characteristics, academic demands, psychological status, social influences, and environmental conditions that shape lifestyle choices during the training period (Whitehead, 2018). These behaviors are important because they influence both current well-being and future professional practice (Walker et al., 2016). Understanding these key concepts provides a foundation for examining health-related behaviors among nursing students (Naidoo & Wills, 2019). Health promotion is recognized as a core component of nursing education and public health practice (WHO, 2022).

1.1 BACKGROUND OF THE STUDY:

Evidence indicates that a high proportion of nursing students worldwide do not consistently engage in health-promoting behaviors (Peltzer & Pengpid, 2021). Physical inactivity, unhealthy dietary patterns, inadequate sleep, and poor stress management are frequently reported among this group (Pulido-Martos et al., 2020). Research from Pakistan reveals high levels of academic stress, limited physical activity, and irregular eating habits among nursing students (Rehman et al., 2021). The high prevalence of unhealthy behaviors among nursing students represents an important public health concern (WHO, 2022). Academic workload plays a significant role in shaping health-promoting behaviors among nursing students (Labrague et al., 2018). Intensive coursework, frequent examinations, and clinical requirements contribute to physical and mental exhaustion (Dyrbye et al., 2020). Limited time availability often leads to reduced

participation in physical activity and reliance on fast food (Pulido-Martos et al., 2020).

Psychological factors strongly influence the adoption of health-promoting behaviors among nursing students (Dyrbye et al., 2020). High levels of anxiety, emotional fatigue, and depressive symptoms are commonly reported in this population (Reeve et al., 2019).

Supportive social networks foster healthier lifestyle practices (WHO, 2022).

Gender differences have been observed in health-promoting behaviors among nursing students (Alzahrani et al., 2019). Female students often report higher levels of stress and emotional burden (Peltzer & Pengpid, 2021).

Gender-sensitive health promotion strategies are therefore necessary (WHO, 2022).

Health behaviors developed during nursing education tend to persist into professional life (Melnik et al., 2018). Poor self-care practices increase the risk of burnout among future nurses (Stimpfel et al., 2019). Fatigue and stress negatively affect job performance and patient safety (Udod et al., 2020). Early adoption of unhealthy habits compromises long-term physical and mental health (Ross et al., 2017). Student

years represent a critical period for establishing healthy routines (Pender et al., 2015). Promoting health during training supports workforce sustainability (WHO, 2022).

Clinical training environments exert considerable influence on nursing students' health behaviors (James et al., 2021).

Socioeconomic status affects access to resources that support healthy living (Marmot et al., 2020). Financial constraints limit the ability to purchase nutritious food or engage in recreational activities (Wong et al., 2019). Nursing students from low-income backgrounds experience additional psychological stress (Ross et al., 2017). Economic challenges influence health priorities and decision-making (Naidoo & Wills, 2019). Inequities in resources contribute to unequal health outcomes (WHO, 2022). Addressing socioeconomic barriers is essential for effective health promotion (Marmot et al., 2020).

Health responsibility is often overlooked by nursing students despite their professional role

(Walker et al., 2016). Preventive health practices such as regular checkups and self-monitoring receive low priority (Naidoo & Wills, 2019). Academic pressures overshadow personal health maintenance (Melnik et al., 2018). This contradicts the principles of professional nursing practice (Whitehead, 2018). Promoting accountability encourages healthier lifestyle choices (Pender et al., 2015). Nursing education should emphasize personal health responsibility (WHO, 2022).

Unhealthy behaviors among nursing students affect the quality of future patient care (Stimpfel et al., 2019). Burnout reduces empathy, communication, and professional satisfaction (Udod et al., 2020). Nurses are expected to act as role models for healthy living (Whitehead, 2018). Poor self-care undermines professional credibility and effectiveness (Melnik et al., 2018).

Improved well-being contributes to workforce sustainability and quality care delivery (Udod et al., 2020). Research supports evidence-based educational planning (WHO, 2022).

1.2. PROBLEM STATEMENT:

Nursing students are expected to adopt and promote healthy lifestyles as future healthcare professionals; however, evidence indicates that many nursing students do not consistently practice health-promoting behaviors. Academic workload, clinical training demands, psychological stress, limited time, and inadequate institutional support often lead to unhealthy dietary habits, physical inactivity, poor sleep patterns, and ineffective stress management. Despite adequate theoretical knowledge about health promotion, a significant gap exists between knowledge and actual practice among nursing students. These unhealthy behaviors not only affect students' physical and mental well-being but also increase the risk of burnout and negatively influence their future professional performance and ability to act as role models for patients. In the Pakistani context, limited local evidence is available regarding the factors influencing health-promoting behaviors among nursing students.

2. LITERATURE REVIEW:

Health-promoting behaviors (HPBs) are described as the proactive behaviors that individuals can implement to improve their health or sustain it, including physical exercise, stress relief, and health information seeking (Hwang and Oh, 2020). The behaviors are more important to the nursing students considering their future as healthcare providers and role models in health promotion. Even though nursing curricula focus on health knowledge, there is data that indicates theoretical knowledge may not necessarily translate to patterned personal practice of HPBs in students. The personal involvement of nursing students in such behaviors may influence their personal well-being and the quality of the health education they bring to the patients in the workplace (Hwang and Oh, 2020).

Anxiety, depression, and social support are also psychosocial factors that have been reported to be correlated with HPBs. A Saudi Arabian study (2024) revealed that HPBs of nursing students were connected to their psychological well-being, where an increased level of anxiety and depression was related to a lesser involvement in positive health behaviours, and a better level of social support correlated with higher HPB scores (Anonymous, 2024). These results highlight the fact that psychological distress may be a hindrance to healthful behaviors, which the necessity of mental health in nursing education.

Besides the psychosocial effect, demographic and school factors like year of study, age, and living circumstances may influence the HPBs of nursing students. Students in later years of study are usually more responsible of their health, possibly because they have been exposed to clinical practice more often and probably because they are more mature but the pressure of academic work could be hindering positive stress coping behavior. These differences indicate that HPBs change during the nursing education path and thus should be addressed among various student subgroups with specific interventions.

Recent studies have investigated the qualitative experience of barriers and support of HPBs, and identified that nurses students generally feel unready in their training to find time to self-care

and pursue health (Anonymous, 2024). Lack of structured health promotion training, clinical placements, and demands of the curriculum were mentioned by students as barriers to the adoption of consistent healthy lifestyle behaviors. This identifies a necessity in the implementation of formal health promotion courses and the application of practical skills development in nursing curricula.

Another predictor of HPB engagement is self-efficacy, which is the belief in a person to be able to conduct certain health behaviors. Younger individuals who have better self-efficacy have a greater likelihood of being more responsible in their health, engaging in preventive behaviors, and continuing on course amid challenges encountered due to their hectic school timetables. Hence, development of self-efficacy via goal-setting and behaviour-change interventions could prove useful in improving HPBs in nursing students.

3. METHODOLOGY

3.1. STUDY SETTING:

The study was conducted at Shaikha Fatima Institute of Nursing & Allied Health Sciences Lahore. The college provides undergraduate and postgraduate nursing education and has a total student population of 280. The study was carried out in classrooms, hostels, and other campus areas where students could participate voluntarily.

3.2. STUDY DESIGN:

A quantitative descriptive cross-sectional study design was used to assess the factors affecting the practice of health-promoting behaviors among nursing students. This design allowed the collection of data at a single point in time to describe the prevalence of health-promoting behaviors and associated factors.

3.3 STUDY POPULATION

The target population included all nursing students enrolled at Shaikha Fatima Institute of Nursing & Health Sciences University of Health Sciences Lahore, totaling 280 students.

3.4. SAMPLE SIZE:

The sample size was calculated using the Raosoft sample size calculator, total population 280 with a 5% margin of error, 95% confidence level, and 50% response distribution, resulting in a required sample of 163 participants.

3.5. SAMPLING TECHNIQUE:

A **convenience sampling technique** was used to select participants who met the inclusion criteria and were available during the data collection period.

3.6. SAMPLE SELECTION:

3.6.1. Inclusion Criteria:

- Nursing students currently enrolled at Fatima College of Nursing, Lahore.
- Students who had completed at least one academic year.
- Students willing to provide informed consent for participation.

3.6.2. Exclusion Criteria:

1. Nursing students on leave or absent during data collection.
2. Students who did not provide consent.
3. Students with diagnosed physical or mental health conditions that could affect their participation.

3.7. DATA COLLECTION PROCEDURE:

Permission was obtained from the college administration prior to data collection. Students were approached in classrooms and hostels, the purpose of the study was explained, and informed consent was obtained. The questionnaires were distributed and collected on the same day to ensure maximum response rate.

3.8. DATA ANALYSIS PROCEDURE:

Data were analyzed using SPSS version 27. Descriptive statistics such as mean, standard deviation, frequency, and percentage were used to summarize demographic data and health-promoting behaviors. Inferential statistics, such as chi-square tests or correlation analysis, were employed to examine associations between

demographic variables and health-promoting behaviors.

3.9. ETHICAL CONSIDERATIONS

Ethical approval was obtained from the institutional review board of Fatima College of

Nursing. Participants were informed about the voluntary nature of the study, confidentiality of their responses, and their right to withdraw at any time without any academic or personal consequences.

4 RESULT AND ANALYSIS:

Table 4.1: Demographic Characteristics of the Participants (n = 163)

Variable	Category	Frequency (f)	Percentage (%)
Age (Years)	18–20	42	25.8
	21–23	71	43.6
	24–26	36	22.1
	Above 26	14	8.5
Gender	Male	28	17.2
	Female	135	82.8
Academic Year	2nd Year	45	27.6
	3rd Year	61	37.4
	4th Year	57	35

Figure 4.1: Age of Participants

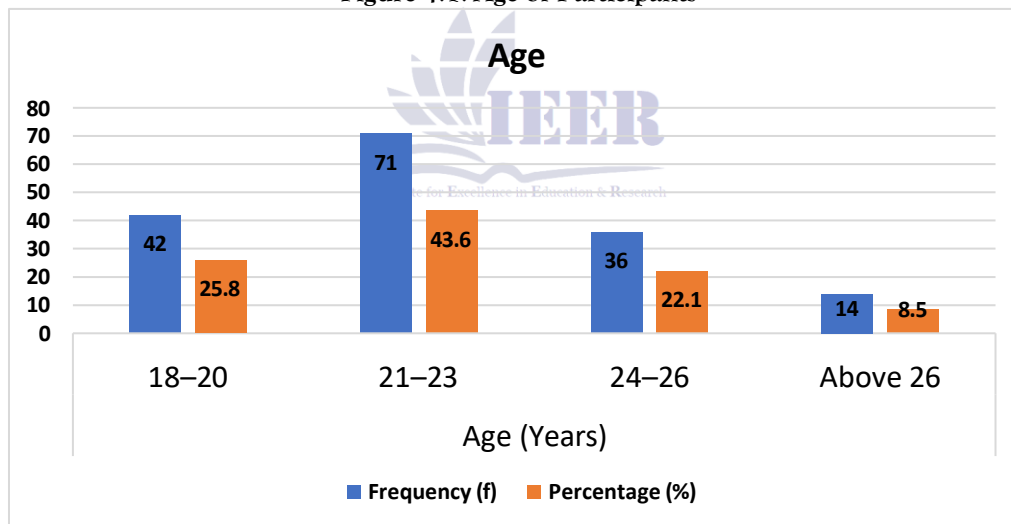


Table 4.2: Mean Scores of Health-Promoting Behavior Domains (n = 163)

Domain	Mean $\pm$ SD
Health Responsibility	2.81 $\pm$ 0.54
Physical Activity	2.43 $\pm$ 0.61
Nutrition	2.76 $\pm$ 0.57
Stress Management	2.38 $\pm$ 0.63
Interpersonal Relations	3.02 $\pm$ 0.49
Spiritual Growth	3.10 $\pm$ 0.46

Table 4.3: Factors Affecting Health-Promoting Behaviors (n = 163)

Factor	Agree f (%)	Disagree f (%)
Academic workload affects HPB	118 (72.4)	45 (27.6)
Lack of time for exercise	124 (76.1)	39 (23.9)
Stress due to studies	109 (66.9)	54 (33.1)
Adequate health knowledge	97 (59.5)	66 (40.5)
Family/social support present	112 (68.7)	51 (31.3)

Table 4.4: Association Between Gender and Level of Health-Promoting Behavior (n = 163)

Gender	Poor f (%)	Moderate f (%)	Good f (%)	χ^2	p-value
Male	10 (35.7)	12 (42.9)	6 (21.4)		
Female	31 (23.0)	67 (49.6)	37 (27.4)	4.12	0.041*

Table 4.5: Association Between Academic Year and Health-Promoting Behavior (n = 163)

Academic Year	Poor f (%)	Moderate f (%)	Good f (%)	χ^2	p-value
2nd Year	14 (35.9)	18 (46.2)	7 (17.9)		
3rd Year	13 (25.5)	25 (49.0)	13 (25.5)		
4th Year	9 (19.1)	23 (48.9)	15 (31.9)		
Internship	5 (19.2)	13 (50.0)	8 (30.8)	8.64	0.034*

Table 4.6: Correlation Between Stress Level and Health-Promoting Behavior Score (n = 163)

Variables Compared	r-value	p-value
Stress level vs HPB score	-0.42	0.001*

5 DISCUSSIONS OF THE STUDY:

As the current research results reflect, nursing students portrayed different rates of health-promoting behaviors with the greatest percentage falling in the moderate group. The trend is in line with other studies indicating that nursing students tend to score averagely on general measures of promotion of healthy lifestyles, indicating that they are likely knowledgeable about promoting healthy practices, but regular practice might be low (Hwang and Oh, 2020). More specifically, spiritual development and interpersonal relationships were more likely to be practiced than actual physical activity and stress management, which is in line with the results of past research that found spiritual aspects to be higher in scores than physical ones among nursing students (Saudi Arabia study, 2024).

The researchers also concluded that gender and academic year were demographic variables that significantly correlated with health-promoting practices. Female pupils tended to have a greater number of positive health-related behaviors than male pupils as it has been observed in South Korean studies where gender affected particular behaviors, including health responsibility and exercise (Hwang and Oh, 2020). This gender disparity can be attributed to the sociocultural standards and the disparity in the priorities of health as has been recorded elsewhere. On the other hand, other studies have not identified statistically significant differences (gender) indicating that the role of gender can also differ depending on the culture and education background (Saudi Arabia, 2024).

6 CONCLUSION AND RECOMMENDATIONS OF THE STUDY:

6.1. CONCLUSION:

The present study explored the factors influencing the practice of health-promoting behaviors among nursing students. Findings indicate that while nursing students generally possess moderate knowledge about health promotion, various internal and external factors significantly affect their ability to consistently engage in health-promoting behaviors. Key influencing factors included personal motivation, awareness of healthy lifestyle practices, academic workload, social support, and accessibility of resources for physical and mental well-being. Additionally, students' attitudes and perceived self-efficacy were found to play a critical role in translating knowledge into practice.

6.2. RECOMMENDATIONS OF THE STUDY:

Based on the findings of this study, the following recommendations are proposed to enhance the practice of health-promoting behaviors among nursing students:

1. Incorporate Health Promotion Programs in Curriculum:
2. Enhance Awareness and Motivation:
3. Provide Supportive Environment:
4. Address Academic and Time Constraints:
5. Encourage Peer and Family Support:
6. Regular Monitoring and Feedback:
7. Further Research:

6.3. STRENGTH OF THE STUDY

This study provides valuable insights into the factors affecting the practice of health-promoting behaviors among nursing students. One of its key strengths is the comprehensive assessment of both internal (knowledge, attitude, motivation) and external (academic workload, social support, accessibility of resources) factors, offering a holistic understanding of the determinants of health-promoting behavior. The use of a structured questionnaire with validated items ensured the reliability and accuracy of data collection. Additionally, the study's focus on nursing students—a population that will play a

critical role in future healthcare delivery—makes the findings highly relevant for educational planning and policy development.

LIMITATIONS OF THE STUDY:

Despite its contributions, this study had certain limitations. The use of a cross-sectional design restricted the ability to establish causal relationships between the identified factors and health-promoting behaviors. Data collection relied on self-reported questionnaires, which may have introduced response bias or social desirability bias. The study was conducted at a single nursing college, limiting the generalizability of the findings to nursing students in other institutions or regions.

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