

Perceived Barriers to Health-Promoting Behaviors among Nursing Staff Working at Al-Imam Al-Hussein Medical City, Kerbala, Iraq

Ameer Alaa Najaf¹, Selman Hussein Faris²

^{1,2} Community health nursing, College of Nursing, University of Kerbala, Kerbala, Iraq

Email: selman.hussein@uokerbala.edu.iq (Corresponding Author)



Received: 23 / 7 /2025

Accepted: 1 / 9 /2025

Published: 31 / 3 /2026

DOI:

10.65682/kjnhs.v2.i1.113-120

Abstract

Background: Among the barriers that nurses encounter in their practices include work overloads, working at night and odd hours, which do not allow them to be able to practice health and wellness-promoting behaviors despite understanding what they need to do about health and wellness.

Methods: This study utilized a cross-sectional design to identify barriers perceived by nursing staff ($n = 300$) regarding their health-promoting behaviors and to explore associations with various personal and professional variables. Data were gathered using a structured questionnaire adopted by previous research, encompassing demographics and determinants of health-promoting behaviors. Cronbach's alpha coefficient was used to determine the reliability of the questionnaire.

Results: The findings revealed that participation in health-promoting activities had a robust inverse relationship with perceived barriers ($r = -.296$, $P = .001$), implying that higher engagement in such activities was associated with lower perceived barriers. Notably, other factors such as sex, age, marital status, qualifications, income, experience, and prior surgeries did not exhibit significant associations.

Conclusion: The study concluded that nursing staff confronts moderate barriers, primarily due to logistical challenges like the lack of nearby activity centers and insufficient information about available programs. Further obstacles recognized included environmental aspects like bad weather and personal barriers, such as time constraints from family responsibilities, alongside a lack of motivation. Interestingly, physical limitations were not common barriers among participants.

Keywords: Health-promoting behaviors, Barriers, Nursing staff



1. Introduction

Nurses are very important figures in the health sector and are typically unsung heroes of healthcare institutions and emergency, They are often the first and sometimes only health professional a patient will see, and the quality of their initial assessment and subsequent care is vital to strong health outcomes (WHO,2025).

Nurses play a vital role as health advocates across diverse settings, yet they must also prioritize their own health as caregivers. While spending considerable time with patients, nurses often encounter challenges such as heavy workloads, night shifts, and irregular hours, which inhibit their ability to engage in health-promoting behaviors. Despite their knowledge of health and wellness, many nurses struggle with engaging in physical activity and maintaining healthy lifestyles, which can lead to increased turnover rates. Improved health behaviors among nurses not only enhance their well-being but also boost organizational productivity and patient outcomes. Therefore, research should expand to focus on nurses' health-promoting behaviors, emphasizing their importance in nursing practice and patient care (Choi et al., 2024).

Health-promoting behaviors encompass activities that enhance self-realization and foster a sense of well-being. These behaviors support individuals in maintaining and promoting healthy lifestyles (Shaahmadi et al.,2019).

According to a WHO statistic, there are 43.5 million health workers worldwide, with nurses exceeding 20 million (Zeng et al., 2021).According to the Ministry of Health, the number of nurses in Iraq is approximately 89,990, making them the largest group of healthcare professionals in the country(Al-Ashbal & Lami, 2023).

The results of healthy lifestyles of different groups of patients are widely documented; however, in Iraq, little is known about the health-promoting behaviors of nurses. Usually, nurses have problems with maintaining healthy behaviors (Okab,2020).

Many nurses encounter significant barriers to maintaining a healthy lifestyle, classified into three main categories: work-related, individual, and social. Work-related barriers, such as heavy workloads, long hours, and night shifts, leave nurses exhausted with little time for exercise or healthy meal preparation. Individual barriers include a lack of health knowledge and a tendency to neglect personal health needs, often leading to unhealthy practices and postponing medical care. Social barriers encompass family responsibilities(Açıkgöz & Beser, 2022).

A study identified several barriers that inhibit health-promoting behaviors among nurses in an urban hospital setting. These barriers include Work-Related Stress, Shift Work, Physical and Mental Fatigue, Time Constraints, Cultural and Environmental Factors, Psychological Barriers, Financial Constraints, Peer Influence, and Social Norms. These findings indicate that targeted interventions focused on mitigating workplace stress, fostering cultural support, and enhancing individual self-efficacy may significantly improve nurses' engagement in health-promoting behaviors(Lee, 2013).

2. Materials and Methods

2.1 Objective of the study

The current study aims to assess the barriers to health-promoting behaviors perceived by nursing staff and examine the significant associations among perceived barriers with personal and professional variables of nursing staff.

2.2 Methodology

The present study employs a cross-sectional design aimed at elucidating barriers for adopting health-promoting behaviors among nursing staff at Al-Imam Al-Hussein Medical City. To ensure representative participation, a simple random sampling technique was utilized, providing every nurse within the target population an equal chance of selection. The requisite appropriate sample size was computed to provide adequate statistical power in establishing significant relationships among the variables, with a total of 300 nurses identified as necessary for the study. This sample size is deemed sufficient to yield robust and reliable results. Data collection was conducted via a structured questionnaire, adopted from previous research by Hsuan-Hui Chen and Pei-Lin Hsieh (Chen & Hsieh, 2021), encompassing demographic information, items and professional information, item barriers of health-promoting behaviors, and the reliability of the internal consistency method were used to evaluate a questionnaire of the current study. While using the Cronbach coefficient alpha. Afterwards, the data were analyzed through the Statistical Package for Social Science (IBM SPSS) version 26.0.

2.3 Ethical Considerations

The study questionnaire (Perceived Barriers to Health-Promoting Behaviors among Nursing Staff) was submitted to the Ethics Committee constituted at the College of Nursing, which read and thus accepted to carry out the study. On 12 th of November 2024, an official letter was given to carry out the study.

3. Results

Table (1): Distribution of Nursing Staff according to their Socio-demographic Variables (SDVs)

| List | SDVs | f | % | |
|------|--|-----------------------|------------|------------|
| 1 | Gender | Male | 169 | 56.3 |
| | | Female | 131 | 43.7 |
| | | Total | 300 | 100 |
| 2 | Age (year) M±SD= 29 ± 6 | 20 – 29 | 195 | 65 |
| | | 30 – 39 | 94 | 31.3 |
| | | 40 – 49 | 7 | 2.3 |
| | | 50 + | 4 | 1.3 |
| | | Total | 300 | 100 |
| | | Marital status | Married | 168 |
| 3 | Marital status | Unmarried | 115 | 38.4 |
| | | Divorced/Separated | 10 | 3.3 |
| | | Widowed/er | 7 | 2.3 |
| | | Total | 300 | 100 |
| 4 | Perceived monthly income | Insufficient | 103 | 34.3 |
| | | Barely sufficient | 116 | 38.7 |
| | | Sufficient | 81 | 27 |
| | | Total | 300 | 100 |

| | | | | |
|---|--|------------------|------------|------------|
| | | Secondary school | 41 | 13.7 |
| 5 | Qualification in nursing | Diploma | 120 | 40 |
| | | Bachelor | 139 | 46.3 |
| | | Total | 300 | 100 |
| 6 | Years of experience M±SD= 4.8 ± 5.8 | < 1 | 148 | 49.4 |
| | | 1 – 5 | 13 | 4.3 |
| | | 6 – 10 | 99 | 33 |
| | | 11 – 15 | 25 | 8.3 |
| | | 16 + | 15 | 5 |
| | | Total | 300 | 100 |

1. f: Frequency, %: Percentage, M: Mean, SD: Standard deviation

Table (1) reveals that the nursing staff consists of 56.3% males and 43.7% females. The average age of nursing staff refers to 29±6 years; a higher proportion of participants (65%) fall within the age group of 20 – 29 years. The marital status refers to “married” among 60% of nursing staff, 38.4% were still unmarried, and only 3.3% were divorced or separated, and 2.3% were widowed or widower. Regarding monthly income, 38.7% of nursing staff perceive barely sufficient monthly income, 34.3% perceive insufficient, while 27% perceive sufficient monthly income. The qualification in nursing indicates that the highest proportion (46.3%) graduated with a “Bachelor's degree in nursing”, 40% graduated with a “Diploma degree”, and only 13.7% were graduated from a nursing secondary school. The average years of experience for nursing staff refers to 4.8± 5.8 years, a higher proportion of them are seen as novices with less than one year of experience, and 33% were seen with 6 – 10 years of experience.

Table (2): Association between Perceived Barriers among Nursing Staff and their Variables

| Variables | | Perceived Barriers | | |
|---------------------------------|--------------------|--------------------|--------|----------------------|
| | | Mean | SD | Association |
| Gender | Male | 38.76 | 9.452 | $r^s = .078$ |
| | Female | 40.24 | 9.299 | P-value= .176 |
| Age (year) | 20 – 29 | 39.98 | 9.589 | |
| | 30 – 39 | 38.35 | 8.398 | $r^s = .063$ |
| | 40 – 49 | 35.71 | 15.294 | P-value= .273 |
| | 50 + | 43.00 | 9.899 | |
| Marital status | Married | 39.97 | 8.926 | |
| | Unmarried | 38.40 | 10.093 | $r^s = .008$ |
| | Divorced/Separated | 35.90 | 7.810 | P-value= .892 |
| | Widowed/er | 47.57 | 5.533 | |
| Qualification in nursing | Secondary school | 41.90 | 7.664 | $r^s = .095$ |
| | Diploma | 39.27 | 9.347 | P-value= .102 |

| | | | | |
|---|-------------------|-------|--------|------------------------|
| | Bachelor | 38.80 | 9.838 | |
| | Insufficient | 38.19 | 10.011 | |
| Perceived monthly income | Barely sufficient | 41.10 | 8.764 | $r^s = .025$ |
| | Sufficient | 38.53 | 9.226 | P-value= .671 |
| | < 1 | 38.01 | 9.908 | |
| | 1 – 5 | 41.23 | 8.974 | |
| Years of experience | 6 – 10 | 41.10 | 8.299 | $r^s = .103$ |
| | 11 – 15 | 41.64 | 7.697 | P-value= .075 |
| | 16 + | 36.73 | 11.949 | |
| Chronic diseases | NO | 38.92 | 9.604 | $r^* = .115$ |
| | YES | 41.77 | 8.021 | P-value= .046* |
| Previous surgery | NO | 39.31 | 9.825 | $r^* = .021$ |
| | YES | 39.80 | 7.515 | P-value= .720 |
| | Never | 44.96 | 7.300 | |
| Participation in health promoting activities | Seldom | 39.36 | 8.034 | |
| | Sometimes | 37.85 | 8.085 | $r^s = -.296$ |
| | Most of time | 37.61 | 15.168 | P-value= .001** |
| | Always | 28.50 | 3.391 | |

r^s : Spearman Correlation coefficient, r^* : Biserial correlation coefficient, P : Probability, *Significant at $p \leq 0.05$, **Significant at $p \leq 0.01$

shows that among the examined variables, two demonstrated statistically significant associations with perceived barriers among nursing staff. Participation in health-promoting activities had the strongest and most significant inverse relationship ($r = -.296$, $P = .001$), indicating that as engagement in such activities increased, perceived barriers decreased substantially, with the lowest mean score reported by those who always participated. Additionally, the presence of chronic diseases showed a weak but significant positive association ($r = .115$, $P = .046$), with nurses having chronic conditions reporting slightly higher perceived barriers. All other variables, including gender, age, marital status, qualification, income, experience, and previous surgery, did not exhibit statistically significant associations with perceived barriers.

Table (3): Assessment of Perceived Barriers among Nursing Staff

| Perceived Barriers | f | % | M | SD | Ass. |
|--------------------|-----|------|-------|-------|----------|
| Low | 55 | 18.4 | | | |
| Moderate | 187 | 62.3 | 39.41 | 9.399 | Moderate |
| High | 58 | 19.3 | | | |
| Total | 300 | 100 | | | |

f: Frequency, %: Percentage

M: Mean for total score, SD: Standard Deviation for total score, Ass: Assessment

Low= 13 – 30.33, Moderate= 30.34– 47.67, High= 47.68 – 65

Table (2) indicates that a greater proportion of nursing staff (62.3%) reported a “Moderate” level of perceived barriers to health-promoting behaviors ($M \pm SD = 39.41 \pm 9.399$), while 19.3% reported a high level and 18.4% reported a low level of perceived barriers.

4. Discussion

4.1 Discussion of Socio-demographic Variables Nursing Staff

The study revealed a male predominance (56.3%), contrasting with the traditionally female-dominated nursing workforce reported by the World Health Organization (WHO, 2020). This deviation may reflect local recruitment patterns, cultural shifts, or regional labor dynamics, and should be considered when interpreting health-promoting behaviors (HPBs) within Pender’s Health Promotion Model (Pender et al., 2015).

Participants were predominantly young (mean age 29 ± 6), with most under 40, aligning with findings by Qtait & Sayej (2016) that highlight a concentration of nurses in early career stages. Marital status was largely married (60%), consistent with a study conducted by Hamdan et al. (2022) indicating sociocultural influences on family patterns.

Income findings suggest financial strain, with most nurses reporting barely sufficient or insufficient earnings, consistent with the Royal College of Nursing Employment Survey (2017), which links inadequate compensation to workload and job demands.

4.2 Discussion of the Association between Perceived Barriers and Nursing Staff Variables

Table 2 illustrates a strong inverse relationship between participation in health-promoting activities and perceived barriers ($r = -.296, P = .001$), indicating that increased engagement correlates with a decrease in perceived barriers, particularly among those who consistently participate. This finding agrees with a study by Al-Qahtani et al. (2021), revealing a significant negative association between nurses’ involvement in health-promoting activities and perceived barriers. Conversely, the presence of chronic diseases showed a weak positive association ($r = .115, P = .046$), with nurses reporting higher perceived barriers. Other variables such as sex, age, marital status, qualification, income, experience, and previous surgeries did not show significant associations. This suggests that nurses may struggle to manage chronic conditions, impacting their health-promoting behaviors. The finding agrees with (Alruwaili et al., 2024), who found a significant link between chronic illness prevalence and perceived benefits (Alruwaili et al., 2024).

4.3 Discussion of Perceived Barriers among Nursing Staff

Table (3) indicates that 62.3% of nursing staff reported a "Moderate" level of perceived barriers to health-promoting behaviors ($M \pm SD = 39.41 \pm 9.399$). In contrast, 19.3% indicated high barriers, while 18.4% reported low barriers. These findings highlight that while barriers exist, they are not major impediments to health-promoting practices for most participants. However, those facing high perceived barriers encounter significant challenges. Variability in perceived barriers is affected by aspects such as personal commitments, professional obligations, work environment, stressors, available resources, and duty shifts. A study stated that high barriers were predominantly linked to workload, time constraints, inadequate training, and institutional factors (Alruwaili et al., 2024).

5. Conclusion

In conclusion, the analysis emphasizes a substantial inverse association between participation in health-promoting activities and perceived barriers, emphasizing the need for targeted interventions to support nurses in engaging more actively in these practices. While the majority report moderate barriers, a considerable percentage still experience high obstructions that could inhibit their health-promoting behaviors. Factors such as workload, time constraints, and insufficient training contribute

to these perceived barriers. Addressing these challenges is critical to improve the general well-being of nursing staff and cultivate a more health-centric work environment. Future research should further investigate these dynamics for effective solutions.

6. References

- Açıköz, S., & Beser, A. (2022). Barriers to healthy lifestyle behaviors perceived by nurses working in hospitals. *Avrasya Sağlık Bilimleri Dergisi*, 5(2), 78–87.
- Al-Ashbal, M. A., & Lami, F. H. (2023). Performance evaluation of health houses in Iraq 2021–2022: A descriptive study. *Journal of Family and Community Medicine*, 30(2), 116–122.
- Alruwaili, M. J. J., Alwallah, S. A., ALRuwaili, F. S., Asmari, M. A., AlRowily, R. T. S., Alghamedi, F. H., Alenazi, E. M., Alanazi, A. D., Alshammari, W. F., & Alghamedi, N. H. A. (2024). The role of nursing in managing chronic illness: A review of patient outcomes and quality of life. *Journal of Ecohumanism*, 3(7).
- Chen, H.-H., & Hsieh, P.-L. (2021). Applying the Pender's health promotion model to identify the factors related to older adults' participation in community-based health promotion activities. *International Journal of Environmental Research and Public Health*, 18(19), 9985.
- Choi, M. J., Kim, S., & Jeong, S. H. (2024). Factors associated with health-promoting behaviors among nurses in south Korea: Systematic review and meta-analysis based on pender's health promotion model. *Asian Nursing Research*, 18(2), 188–202.
- Crooks, E., Rampley, T., Weeks, D. L., Billings, C., Stengem, D., & Rangel, T. (2024). Perceived barriers to patient mobilization among therapy and nursing acute care staff: a multi-site survey study. *Archives of Physical Medicine and Rehabilitation*, 105(2), 243–250.
- Lee, H. (2013). *Barriers and facilitators to engaging in health promoting behaviors among nurses in an urban setting: a mixed-method study*. Johns Hopkins University.
- Zeng, W., Shang, S., Fang, Q., He, S., Li, J., & Yao, Y. (2021). Health promoting lifestyle behaviors and associated predictors among clinical nurses in China: a cross-sectional study. *BMC Nursing*, 20(1), 230.
- Hamdan, K., Zahran, Z., Al-Bashaireh, A., Khraisat, O., Albqoor, M., & Shaheen, A. (2022). Jordanian nurses' knowledge, attitudes, and willingness to provide care to patients with COVID-19. *The Open Nursing Journal*, 16, e187443462208102. <https://doi.org/10.2174/18744346-v16-e2208102>
- Pender, N. J., Murdaugh, C. L., & Parsons, M. A. (2015). *Health promotion in nursing practice* (7th Ed.). Pearson.
- Qtait, M. T., & Sayej, S. (2016). Demographic variable (age, gender, marital status, and educational qualifications, income) and their effect on nurses' performance in Hebron hospitals. *Journal of Health, Medicine and Nursing*, 24, 1–8.
- World Health Organization. (2020). *State of the world's nursing 2020: Investing in education, jobs and leadership* (J. Buchan, J. Campbell, & F. Catton, Eds.; 116 pp.). World Health Organization. <https://www.who.int/publications/i/item/9789240003279>
- Royal College of Nursing. (2017). *Royal College of Nursing Employment Survey 2017*. Institute for Employment Studies. <https://www.rcn.org.uk/-/media/royal-college-of-nursing/documents/publications/2018/june/pdf-007076.pdf>.
- Shaahmadi, F., Shojaeizadeh, D., Sadeghi, R., & Arefi, Z. (2019). Factors Influencing Health

Promoting Behaviours in Women of Reproductive Age in Iran: Based on Pender's Health Promotion Model. Open access Macedonian journal of medical sciences, 7(14), 2360–2364. <https://doi.org/10.3889/oamjms.2019.460>

World Health Organization. (2025). Nursing and midwifery. Retrieved June 21, 2025, from <https://www.who.int/health-topics/nursing>

Okab, A. A. (2020). Assessment of nurse's health promotion of their lifestyles at Al-Kut City hospitals, Iraq. Egyptian Journal of Nursing and Health Sciences, 2(4). <https://doi.org/10.47104/ebnrojs3.v2i4.155>