

The Relationship between the Family Functions and Health-Promoting Behaviors of Nursing Students in Tehran, Iran

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Abstract

Background: The health-promoting behaviors (HPBs) of nursing students may affect the clinical services that they provide to clients. In turn, these students' HPBs may be related to their perceptions of how their families function. On the basis of these issues, this correlational study was conducted to determine the relationship between the HPBs and family functions of nursing students.

Methods: Through stratified random sampling, 458 students from Tehran universities were selected for participation in the study. Data were collected using a demographic characteristics questionnaire, the Health-Promoting Lifestyle Profile II (HPLP-II), and the Family Assessment Device (FAD). The data were then analyzed using an independent t-test and Pearson's correlation coefficient.

Results: The mean overall HPLP-II score of the participants was 2.57 ± 0.35 , and their mean overall FAD score was 2.51 ± 0.17 . The total score with regard to family functions was negatively correlated with HPBs ($r = -0.178$, $P < 0.01$).

Conclusion: Policymakers in the nursing discipline should pay increased attention to nursing students' family functions and HPBs and determine the factors that may influence their engagement in such behaviors.

Key words: Nursing students, Family function, Health-promoting behaviors, Health-Promoting Lifestyle Profile II.

Background

Health promotion and individuals' health have been accentuated in previous studies [1] given the importance of exercising healthy lifestyle behaviors in maintaining health and stimulating a positive approach to life [2]. As future healthcare personnel, nursing students have the potential to influence public health, thus making health promotion one of the key factors in these students' effectiveness as care providers [3]. Health-promoting behaviors (HPBs) are an essential concept in the nursing field, yet previous studies indicated a high level of engagement in risky health conduct among nursing students. Investigating the health and lifestyle behaviors of nursing students and the factors that influence such conduct is important in promoting healthful practices among them [4]. HPBs encompass health responsibility, physical activity, nutrition, interpersonal relations, spiritual growth, and stress management [5]. Family function is an equally consequential factor of health behaviors [6], as evidenced by studies in which parents and children who reported high levels of family functioning were found to typically lead healthier lives [7]. The aforementioned HPB components and family functioning are measured using two instruments, namely, the Health-Promotion Lifestyle Profile II (HPLP-II) [5] and the Family Assessment Device (FAD) [8], respectively. Despite the usefulness of the HPLP-II and FAD, no study has been devoted to the use of these questionnaires in relation to nursing students. Given the importance of family functions and HPBs in the nursing domain, the current research examined the relationship between the HPBs and family functions of nursing students.

Methods

Participants

Stratified random sampling was carried out to select the participants of this correlational study. A total of 458 students from universities in Tehran, Iran were recruited.

The inclusion criteria were as follows: (1) The participants are undergraduate and postgraduate nursing students; (2) they are Iranian; (3) they are amenable to participation in the study; and (4) they are healthy individuals. The

exclusion criterion was failure to complete 40% of the questions in the questionnaires.

Procedures

The nursing students were asked to complete a three-part questionnaire that included questions regarding their demographic characteristics. They were also asked to fill out the FAD and HPLP-II. The demographic data required from the participants were age, gender, marital status, grade, and educational level.

Statistical analyses

In a previous work, the FAD exhibited good validity and reliability, and the testing of the Iranian version yielded a Cronbach's α of 0.81 [9, 10]; the HPLP-II also exhibited good validity and reliability, and the testing of the Iranian version registered a Cronbach's α of 0.86. In the current research, the internal consistencies of the FAD and HPLP-II were $\alpha = 0.88$ and $\alpha = 0.86$, respectively. Data were analyzed using SPSS version 20 [11-13]. The Pearson's correlation coefficient and an independent t-test were used for inferential statistical analysis; a $P < 0.05$ was considered statistically significant [14-17].

Results

Out of the 458 nursing students, 281 were male (59.6%) aged between 18 and 51 years (23.80 ± 5.80), 368 (84%) were undergraduate students, and 69 (16%) were postgraduate students. In terms of marital status, 337 (76.9%) were single. The overall average item score of the participants in the HPLP-II was 2.57 ± 0.35 (Table 1), indicating a high level of engagement in healthy behaviors. The highest average item scores were those for the relationship dimension. The male students exhibited a significantly better nutritional status and a higher quality of interpersonal relationships, but both genders scored high in these two dimensions.

The overall average item score of the participants in the FAD was 2.51 ± 0.17 (Table 2), indicating good family functioning. The highest average item scores were observed in the behavioral control dimension, and the lowest average item scores were earned under the problem solving dimension. No significant difference was found between the male and female students in this regard.

Table 1. HPB scores of the nursing students

Dimension	Number of items	Scores of all students (n = 458)	Scores of female students (n = 177)	Scores of male students (n = 281)	Order	p-value
HPLP-II	52	2.57±0.35	2.57±0.36	2.57±0.34		0.918
Relationships	9	2.91±0.44	2.85±0.46	2.94±0.42	1	0.044
Spiritual growth	9	2.88±0.55	2.92±0.54	2.86±0.55	2	0.269
Nutrition	9	2.61±0.45	2.55±0.51	2.65±0.40	3	0.033
Stress management	8	2.44±0.43	2.46±0.45	2.43±0.42	4	0.551
Health responsibility	9	2.37±0.43	2.37±0.43	2.36±0.42	5	0.796
Physical activity	8	2.13±0.62	2.24±0.64	2.06±0.59	6	0.004

Note: Entries are mean±SD.

The correlational analyses showed that the total score with regard to family functions was negatively correlated with health behaviors. That is, a high score with respect to family functions translates to poor family functioning; high family functioning corresponds to good engagement in HPBs. With the exception of the score for affective responsiveness, the scores for all the dimensions of family functioning were negatively correlated with HPBs, with problem solving ($r = -0.368$) showing the strongest correlation with HPBs (Table 3 - opposite page). Except for physical activity and spiritual growth, all the dimensions of HPBs were negatively correlated with the overall score for family functioning, with the nutrition ($r = -0.232$) dimension exhibiting the strongest correlation with family functioning.

Table 2. Family function scores of the nursing students

Dimension	Items (n)	Scores of all students (n = 458)	Scores of female students (n = 177)	Scores of male students (n = 281)	Order	P-value
FAD score	60	2.51±0.17	2.50±0.17	2.52±0.17		0.234
Behavioral control	9	2.88±0.32	2.86±0.31	2.89±0.33	1	0.319
Affective involvement	7	2.78±0.42	2.76±0.41	2.80±0.43	2	0.376
Role function	11	2.58±0.34	2.56±0.35	2.58±0.32	3	0.575
Affective responsiveness	6	2.48±0.29	2.48±0.30	2.47±0.28	4	0.852
Communication	9	2.46±0.28	2.45±0.30	2.47±0.26	5	0.509
General functioning	12	2.42±0.22	2.40±0.22	2.43±0.21	6	0.181
Problem solving	6	1.95±0.47	1.94±0.50	1.97±0.43	7	0.547

Discussion

In the present research, the mean [standard deviation (SD)] of HPB engagement among the nursing students was 2.57 ± 0.35 , whereas in another study, the value derived was 2.55 ± 0.35 [5]. Hong et al. reported that the mean (SD) of HPB engagement among nursing students was 2.99 ± 0.33 [18], and McElligott et al. estimated this value to be 2.60 ± 0.41 . The findings of the present study correspond with those of McElligott et al. but are lower than those of Hong et al. In the HPLP-II, physical activity registered lower scores than did the other dimensions, consistent with other reports but contrary to that of McElligott et al., who found that stress management among nurses had the lowest mean [19]. The differences between the findings may lie in samples, cultural issues, limitations in sports equipment and facilities in Iran, lack of time management, lack of good policies for leisure time, and lack of attention by people and authorities to the adverse consequences of immobility. The results of the current research indicated that the nursing students currently have a high level of family functioning. No other studies that generated the same findings for the same target population (i.e., nursing students) were found. The nursing students in the present work scored higher on the FAD questionnaire than did the patients in previous studies [20]. The dissimilarity in findings may be due to study population. Furthermore, the highest average scores were derived for behavioral control and affective involvement, indicating that the nursing students perform weakly in these domains of family functioning. This result may be explained by the nature of traditional Iranian culture, which tends to suppress personal expression among family members. Insufficient behavioral control will prevent nursing students from developing health-promoting habits, such as physical activity, health responsibility, and appropriate stress management. The present research found that a health-promoting lifestyle was related to

family functioning, consistent with the results of other studies [16, 20]. Our analyses also revealed that HPBs were most strongly correlated with the problem solving and role function dimensions. Problem solving within families is grounded in communication [21, 22], and the role function focuses on whether a family has established patterns of behaviors for handling a set of family functions. Families with good role functioning can serve as sources of support for HPB engagement among nursing students. Thus, effectively improving students' HPB engagement or preventing unhealthy behaviors necessitates the addressing of all aspects of family functioning.

Conclusion

The nursing students demonstrated high engagement in HPBs and obtained high scores with respect to family functioning. However, they exhibited weakness in some aspects. Effective relevant measures should be taken to improve HPB engagement among nursing students. This study showed that nursing students' HPBs were related to their family functions. Officials at universities and colleges should consider this result and endeavor to establish a close relationship with the families of their students to enhance community health.

Abbreviations

HPLP- II: Health-promoting lifestyle profile II
 FAD: Family assessment device
 HPBs: Health-Promoting Behaviors

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Table 3. Correlation between family functions and HPBs

	FAD	Problem solving	Communication	Role function	Affective responsiveness	Affective involvement	Behavioral control	General functioning
Health responsibility	HPLP-II	-0.178**	-0.111*	-0.322**	-0.021	-0.167**	-0.258**	-0.201**
		-0.161**	-0.005	-0.279**	-0.033	-0.112**	-0.135**	-0.108*
Nutrition		-0.232**	-0.059	-0.338**	-0.066	-0.160**	-0.316**	-0.179**
Stress management		-0.110**	-0.095*	-0.225**	-0.048	-0.068	-0.151**	-0.200**
Physical activity		-0.038	-0.037	-0.180**	-0.116*	-0.068	-0.012	-0.073
Relationships		-0.197**	-0.113*	-0.271**	-0.071	-0.204**	-0.353**	-0.217**
Spiritual growth		-0.068	-0.168**	-0.151**	-0.087	-0.117*	-0.208**	-0.122*

Note: *P<0.05, **P<0.01

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