

Original Research Article

Health-promoting lifestyle behaviours of nursing students of a tertiary care institute

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ABSTRACT

Background: In addition, Health promoting behaviours among the nursing students may affect the quality of patient education. Therefore, this study was undertaken to determine the health-promoting lifestyle behaviours of nursing students in a tertiary care institute, Maharashtra.

Methods: This cross-sectional study was performed on 124 nursing students. Health Promotion Lifestyle Profile Proforma (HPLP) was prepared which consists of two parts, Part I deals with the sociodemographic characteristics of the participants and Part II of the proforma deals with Health-promoting lifestyle information which was a modified version of Health Promoting Lifestyle Profile II (HPLP II). It consists of 46 items divided into 7 subscales (Health responsibility, Physical activity, Food practices, Spiritual growth, Self-concept, Inter personal relations and Stress management). Internal consistency (Cronbach's alpha) of this tool was 0.8197. Permission of Institute Ethical Committee was taken. Descriptive statistics were used to describe HPLP. Data was analyzed by using analysis of variance (ANOVA) and Mann Whitney test.

Results: Majority 89(71.77%) were have good HPLP score and 29(23.39%) were excellent category. The mean overall (Total) HPLP score was 62.27 ± 9.66 (range 33-87). The highest mean score in the subscale were for self-concept and spiritual growth. The lowest scores were for food practices and physical activity. Highly significant difference ($p < 0.0001$) was found between overall mean HPLP scores among the different age groups.

Conclusions: These nursing students had reasonably good orientations towards health behaviours. Attention need to be paid for healthier food choices. Health promotion planning to motivate students for regular physical activity with the purpose of promoting health and preventing diseases is necessary.

Keywords: Health promoting lifestyle profile, Nursing, Students

INTRODUCTION

One of the basic human rights is health. It is important for each individual in society to take responsibility and make the healthy life model a part of their daily routine in order to improve the concept of health.¹ Health promoting lifestyle behaviours is defined as whole actions and beliefs which individuals enforce in order to stay healthy

and prevent themselves from diseases. In addition, the health promoting lifestyle behaviour is based on nutritional values, the ability to express ones personality in social environments, taking the responsibility of one's own health, exercising, support between individuals, and stress management.²

The rapidly growing epidemic of non-communicable diseases is responsible for 60% of the world's deaths. In

India also, the situation of lifestyle diseases is quite alarming. The disease profile is changing rapidly. The World Health Organization (WHO) has identified India as one of the nations that is going to have most of the lifestyle disorders in the near future. Nowadays, not only are lifestyle disorders becoming more common but they are also affecting the younger population. Hence, the population at risk shifts from 40+ to maybe 30+ or even younger.^{3,4}

Health promoting activities and a healthy lifestyle should be regarded as a major strategy to facilitate and preserve health. Healthcare reform has refocused attention on health promotion.¹ Nursing students, who are responsible for client health promotion education, are important to the success of this paradigm shift from a disease model to health promotion.⁵

Health-promoting behaviour is an important concept in nursing, because most of nursing activities involve healthcare education. Nurses are often expected as role models of health promoting lifestyles and as leaders to activate communities for health promotion. Nurse's role modelling healthy lifestyles encourage clients to do the same.⁶ In India, nurses comprise the largest group of health professionals. Today's nursing students will become tomorrow's health care providers. It seems likely that these nursing students beliefs and attitudes or perhaps their behaviours may affect the clinical services, which they will offer to their clients.¹ Facing the increasing needs of the clients, whether these nursing students can develop the health-promoting lifestyles from their studying time and thus function within wellness role models expectation of the client is the main concern of this study. However, there is a paucity of research studies investigating the health-promoting lifestyles of nursing students in India. Therefore, this study was undertaken to determine the health-promoting lifestyle behaviours of nursing students in a tertiary care institute, Maharashtra, India.

METHODS

This was a cross sectional study conducted among the nursing students of B.J. Government Medical College and Sassoon General Hospitals, Pune. The study was conducted from 1st August 2016 to 31st August 2016. The students who were present at the time of study and willing to participate were included in the study.

Study assessment

Health promotion lifestyle profile proforma (HPLP) was prepared which consists of two parts, part I deals with the sociodemographic characteristics of the participants (age, sex, year of study, place of residence, family's monthly income, marital status, height and weight) and any history of chronic illness, history of addiction etc. and part II of the proforma deals with health-promoting lifestyle information. This Health-promoting lifestyle information

was a modified version of health promoting lifestyle profile II (HPLP II) developed by Walker, Sechrist, and Pender.⁷ This modified proforma consists of 46 items divided into 7 subscales (health responsibility- 7 items, physical activity- 7 items, food practices- 10 items, spiritual growth- 5 items, self-concept- 6 items, interpersonal relations- 6 items and stress management- 5 items). The scale measures health-promoting behaviours on a 3 point Likert scale; never, sometimes and routinely. A score for overall health-promoting behaviours is obtained by calculating the mean of the individual's responses to all 46 items. Each item was scored by a fixed 3-point Likert-type format where: "never" was coded as 1, "sometimes" as 2, and "routinely" as 3. The term "routinely" was chosen to represent the most frequent response category because it suggested a regular pattern of behaviours or characteristic of life-style. To calculate a mean score for each subscale, the scores of those particular items were summed up and then divided by the numbers of respondents. Higher mean scores denoted positive health promoting lifestyle or behaviours. The overall HPLP score ranged from 0-92. The score was categorized as poor when the HPLP Score was below 23, as average when the score was between 24-46, as good when score ranged between 47-69 and excellent when it was between 70-92. A pilot study was conducted to see reliability of the questionnaire and the Cronbach's alpha coefficient was 0.8197. The validity of the proforma was obtained by the team of seven experts and modified as per the corrections suggested.

Study conduct

A predesigned and a pretested questionnaire were used to collect data. The questionnaire was distributed to all nursing students who were present in the classroom. Principal investigator and co-investigators were explaining the proforma to all students.

Ethical considerations

Permission of institute ethical committee was taken. Permission from the principal of nursing college was also taken. Informed consent from all students was taken. They will be advised of the purpose of the study and told that participation was voluntary and assured about confidentiality of the information.

Data analysis

The data was tabulated and analyzed using Epi Info and MS Excel. A composite score for HPLP was obtained as well as individual subscales scores. Descriptive statistics (percentage, mean, standard deviation, minimum, and maximum) were used to describe socio-demographics characteristics and HPLP. Data was analyzed by using analysis of variance (ANOVA) and Mann Whitney test. Findings were considered statistically significant if the P value was ≤ 0.05 .

RESULTS

The survey participants consisted of 124 students. The sociodemographic characteristics of these students were presented in Table 1. Majority 81 (65.3%) were between 20-21 years with the mean age of the respondents was 20.5 ± 1.2 years (range 18–25 years). Female nursing students comprised of 86 (69.4%) with male to female ratio of 1:2.2. Majority students 83.1% were Hindus, 65.3% students were from urban area and majority 83.9%

students were hostelite. Majority of the students i.e. 76.6% belong to Socioeconomic class I and II as per the Modified B.G. Prasad's classification. 3 (2.4%) students were suffering from the chronic illness; one student was suffering from Pulmonary Tuberculosis while 2 were suffering from asthma. Only one student had addiction of alcohol. Body mass index was calculated for all students and it showed that 38 (30.6%) students were underweight and 18 (14.6%) students were overweight and obese.

Table 1: Sociodemographic characteristics of nursing students.

Characteristic	No of students(n=124)	Percentage
Age (Years)		
18-19	29	23.4
20-21	81	65.3
>21	14	11.3
Sex		
Male	38	30.6
Female	86	69.4
Residence		
Urban	81	65.3
Rural	43	34.7
Accommodation		
Hostel	104	83.9
Local	20	16.1
Religion		
Hindu	103	83.1
Muslim and other	21	16.9
Socio economic status		
Class I	53	42.7
Class II	42	33.9
Class III	18	14.5
Class IV	7	5.6
Class V	4	3.2
H/O chronic illness		
Yes	3	2.4
No	121	97.6
H/O addiction		
Yes	1	0.8
No	123	99.2
Body Mass Index		
<18.5	38	30.6
18.5 –24.99	68	54.8
25 – 29.99	16	12.9
30 & above	2	1.7

Table 2: HPLP total and subscale mean scores of nursing students (n=124).

HPLP score	Mean	SD	Min	Max	Highest & lowest obtainable score
Overall (total)	62.27	9.66	33	87	0 – 92
Health responsibility	9.02	2.46	2	14	0 – 14
Physical activity	8.06	2.91	0	14	0 – 14
Food practices	11.28	2.30	5	17	0 – 20
Spiritual growth	7.85	2.31	0	10	0 – 10
Self concept	10.02	1.82	3	12	0 – 12
Inter personal relations	9.02	2.27	1	12	0 – 12
Stress management	7.01	1.96	2	10	0 – 10

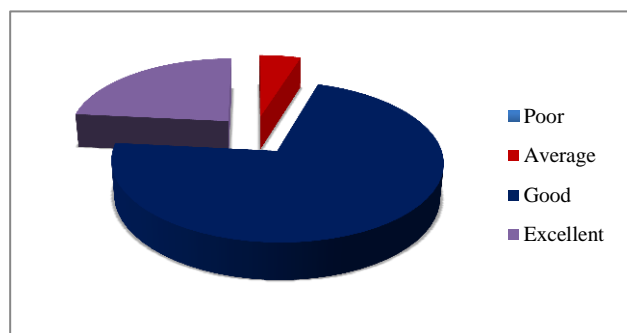
Table 3: Comparison of HPLP mean scores according to age in study group.

HPLP score	Age (years)						F statistics	P Value
	18-19 (n=29)		20-21 (n=81)		>21 (n=14)			
	Mean	SD	Mean	SD	Mean	SD		
Overall	57.34	8.90	64.80	9.06	57.79	9.52	9.12	<0.0001
Health responsibility	8.03	2.21	9.35	2.35	9.14	3.15	3.15	0.046
Physical activity	6.31	2.77	8.68	2.83	8.14	2.24	7.85	0.001
Food practices	10.55	2.369	11.73	2.191	10.21	2.155	4.78	0.01
Spiritual growth	7.38	2.705	8.22	2.012	6.64	2.649	3.71	0.027
Self concept	9.97	2.026	10.21	1.602	9.07	2.336	2.41	0.094
Inter personal relations	8.03	2.514	9.51	2.068	8.29	2.164	5.72	0.004
Stress management	7.07	1.811	7.11	1.936	6.29	2.335	1.08	0.34

Table 4: Comparison of HPLP mean scores according to sex in study group.

HPLP score	Sex				Mann Whitney test Z Value	P Value
	Male (n=38)		Female (n=86)			
	Mean	SD	Mean	SD		
Overall	61.42	7.79	62.64	10.39	0.79	0.43
Health responsibility	9.03	2.46	9.01	2.47	0.42	0.67
Physical activity	8.34	2.38	7.94	3.12	0.57	0.57
Food practices	11.76	2.33	11.07	2.26	1.67	0.095
Spiritual growth	6.84	2.48	8.29	2.09	3.27	0.001
Self concept	9.87	2.05	10.09	1.71	0.28	0.78
Inter personal relations	8.97	1.97	9.05	2.40	0.61	0.54
Stress management	6.61	2.12	7.19	1.86	1.42	0.16

When the students HPLP assessment was done, it was found that nobody was there in poor score category, majority 89 (71.77%) were have good HPLP score and 29 (23.39%) were excellent category (Figure 1).

**Figure 1: Assessment of HPLP score of nursing students.**

It was observed that the mean overall (Total) HPLP score was 62.27 ± 9.66 (range 33-87). The highest mean score in the subscale was 10.02 ± 1.82 for self-concept and lowest was 11.28 ± 2.30 for food practices. The mean scores for each subscale were presented in Table 2.

When the HPLP mean scores were compared between different age groups, highly significant difference ($p < 0.0001$) was found between the groups; who were in the age group between 20-21 years when compared with

other two groups had significant high level of overall health promoting lifestyles. This pattern was also repeated in five dimensions including health responsibility, physical activity, food practices, spiritual growth and interpersonal relations (Table 3).

The males had an overall HPLP mean score of 61.42 ± 7.79 , while the females had an overall HPLP mean score 62.64 ± 10.39 . No significant difference existed between the male and female students in the overall HPLP score ($P = 0.43$). Female students practiced significantly better spiritual growth ($p < 0.001$) than male students; while in remaining six dimensions no significant difference was there among male and female students (Table 4).

DISCUSSION

In developing countries like India health promotion is now receiving an increasing attention regarding the prominent role it plays in health. Health promoting lifestyle is one factor that positively contributes to quality of life. Health-promoting lifestyle among adolescents has become a research focus worldwide. Life of the students in any college is a transitional period, offering good opportunities for establishing health-promoting lifestyles. Most research on health-promoting behaviors has been undertaken in the US and European countries, where university students are little engaged in health-promoting behaviors, especially healthy diet and physical activity.^{8,9,10} However, data on health-promoting

lifestyles among university students in India are limited. When a person engages in health-promoting lifestyle, he/she has a greater potential to remain healthy and possibly live longer without the burden of disease. The HPLP score reflect the nursing student's commitment of health maintaining act, so better is the score, better will be the health profile of a student.

Majority females were there in the study; this indicates that higher percentage of females is studying in nursing in India. In this study, Overall mean HPLP score was 62.27 and majority 71.77% were had good HPLP score (47-69). This showed that students practiced health promoting behaviours at a moderate level. Congruent results were reported in previous studies.^{1,2,11} As to the subscales of HPLP, the students in this study scored highest in self-concept. In self-concept, 94(75.8%) were hopeful about their future, 86(69.4%) were satisfied with oneself and 75(60.5%) find each day challenging and accept new experiences and challenges in their life. This may be explained by the fact that the college environment has provided an appropriate atmosphere and enough opportunities to develop positive self-concept among the nursing students. Similar findings were observed by a study conducted in Jordan among the nursing students.^{2,3} The second highest score among the health promoting lifestyle subscale achieved by the students was spiritual growth which was consistent with previous studies.^{8,11} Hindu is the primary religion in India and has a direct implication on values, beliefs, daily practices and health promoting behaviours of people. These students were having a good score for interpersonal relations. Nowadays, it has become ever more common to observe problems regarding labor dissatisfaction among hospital nursing staff. This dissatisfaction is also due to relationship problems and the absence of adequate communication, which encompasses active listening, empathy and authenticity. These skills would help express problems effectively and thus improve the working lives of professionals who work in hospitals every day. Communication between nurses and co-workers, in conjunction with good interpersonal relationships and social interaction are considered indispensable conditions for feeling comfortable with one's work and also for promoting one's health. Hossein et al found that interpersonal relations had the highest score which corresponds to our findings.¹⁰

The lowest score were for food practices. Our study showed that only 22.6% students ate fruits daily and only 44.3% students ate vegetables servings daily. Despite the guidelines and dietary recommendations, about 77% and 56% of our sample were not taking the fruits and vegetables respectively in their diet. This might be because majority students were hostelite and they had to rely on mess food which only sometimes had vegetables and usually not contains the fruits.

In this study, 30.6% students were underweight and 14.6% students were overweight and obese among our

respondents was higher than the reported from other studies.^{5,6,10} The underweight in the study subjects was due to the habit of skipping meals has been investigated in the present study. The percentage of student who skipped the meal is quite high among the underweight group i.e. 68.4% (26 out of 38) and the leading cause for skipping meals was lack of time. Among the overweight students, majority students ate at fast food establishments i.e. 77.8 % (14 out of 18). Fast food consumption is said to be the barrier of fruit and vegetable intake as well.^{1,10,11} The second lowest score among the health promoting lifestyle subscale achieved by the students was physical activity which was consistent with other studies.^{1,2} The explanation for this could be that our nursing students have extensive theoretical and clinical schedule, so they may feel exhausted to practice activity exercises. Yoga was not much popular among the students as only 28(22.5%) students practiced it. But female students practiced yoga more than males. Possibly, girls preferred yoga because it was less strenuous than physical exercise.

The students in the age group between 20-21 years had significant high level of overall health promoting lifestyles and same pattern was also repeated in five dimensions including health responsibility, physical activity, food practices, spiritual growth and interpersonal relations. This could be due to the younger age students were new comers for this course and were might not be aware of the health promoting behaviours. This finding was not consistent with findings of other studies.^{1,3,10} Females has high HPLP mean score than males; though no significant difference existed. Female students practiced significantly better spiritual growth than male students. More faith in God by female students may again be due to their nature and cultural ethos of Indian people where females are more involved in prayers.

CONCLUSION

The result of the study showed that nursing students had reasonably good orientations towards health behaviours.

Poor health behaviour practices were noted for food practices and physical activity. Attention need to be paid for healthier food choices; with main focus for fruits and vegetables in daily diet. Sedentary life style among the students was alarming. Health promotion planning to motivate students for regular physical activity with the purpose of promoting health and preventing diseases is necessary. Nursing educators should raise the concern about the health promoting lifestyles.

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