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Health status and health seeking behaviour among urban and rural nursing students of a tertiary care hospital: a comparative study

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ABSTRACT

Background: Nurses play a very essential role as health care providers and taking care of their health is necessary. Nursing students are believed to be healthy and although morbidity and mortality from non-communicable diseases occur in adulthood, exposure to risk factors begin in early life. Early identification of risk factors is essential considering their role as future nurses and in public health interventions.

Methods: A cross-sectional study was carried out among 280 nursing students of a tertiary care hospital of Mumbai, Maharashtra after the ethical clearance. Pretested questionnaire was used for collecting data by interview after obtaining informed consent.

Results: Out of the total 280 students, 47% missed at least one of their meals. 67.8% were underweight (BMI <18.5). There was no consumption of dry fruits and non-veg food in 54.64% and 23.9% of the students respectively. 36.07% students consumed green leafy vegetables only once a week. Consumption of water was quite low among the students. 56.07%, were anaemic (Hb <12 gm/dl). Under-nutrition and anaemia was found to be more prevalent in students coming from rural areas. The health seeking behaviour was observed to be better among the urban students.

Conclusions: Findings of this study demonstrated that there is a need to increase the awareness among the nursing students regarding the healthy lifestyle and to follow specific strategies for their comprehensive management.

Keywords: Health status, Health seeking behaviour, Nursing students, Anaemia, Malnutrition

INTRODUCTION

Nursing is a profession within the health care sector focused on the care of individuals, families and communities so they may attain, maintain, or recover optimal health and quality of life. The nursing workforce is the largest component of healthcare delivery in India.² The national commission on Macronutrients and Health acknowledge that nurses and midwives can make major contributions to health care development and achieve the MDGs.³ Nurses may be differentiated from other healthcare providers by their approach to patient care, training and scope of practice.⁴ Nurses care for all ages and cultural backgrounds who are healthy and ill in a holistic manner based on the individual's physical, emotional, psychological, intellectual, social and spiritual needs.³ Thus, Nursing is the vital aspect of health care system and nurses are vital members of health care. Nurses play a very essential role as a health care provider and taking care of their health is of utmost importance.

The nursing students fall into the adolescent age group. Adolescence (10-19 years) is a "coming of age" as children grow into young adults.⁵ Anaemia among adolescents is commonly seen. Iron-deficiency anaemia can negatively impact on growth, increased susceptibility to infection and also impair mental development and learning. Prevalence of anaemia in girls (Hb less than 12 gm%) and in boys (Hb less than 13 gm%) is high as per the reports of NFHS-3 and National Nutrition Monitoring Bureau Survey and the estimated 57% girls and 31% boys in age group 10-19 years in India are anaemic according to NFHS-4 data.⁶

Most of the nursing students are healthy, but there is still substantial risk of illness among them. Illnesses can hinder their ability to grow and develop to their full potential. Alcohol or tobacco use, lack of physical activity and unprotected sex not only affect their current health but also their health as adults, and even the health of their future children.⁷

The study unit comprised of nursing students who came from different strata of society with socio-cultural differences who were exposed suddenly to urban life. Since they have been living in the campus since 3 years, it was possible to plan an intervention for the betterment of their health. Hence the purpose of this study was to assess magnitude of health morbidities in study population and give recommendations to improve their health status in future. Although morbidity and mortality from NCDs mainly occur in adulthood, exposure to risk factors begin in early life. Early identification of risk factors especially among nursing students was essential considering their role as future nurses and role models in public health intervention.

This study was done to give practical insights and to help in health promotion and prevention of further complications of morbidities in the nursing students of the tertiary care hospital.

METHODS

A cross-sectional study was conducted among 280 Nursing students (1st to 3rd year) of a tertiary care hospital in Mumbai from August 2017 to February 2018 after obtaining the institutional ethical clearance.

Criteria for selection of subjects

Inclusion criteria

All the nursing students who were studying at the institute were included in the study.

Exclusion criteria

The students who did not consent were excluded from the study.

Methods of data collection

Questions regarding socio-demographic profile, menstrual history, diet history, medical history, coexisting medical conditions, immunisation history and health seeking behaviour mentioned in a semi-structured pre-validated interview schedule were asked after obtaining the informed consent. General examination, systemic examination and complete blood count (CBC) reports were also recorded. The interview and examination of 20 nursing students was conducted every day in the General OPD ensuring privacy of the students at every step. The students were asked to get their complete blood count (CBC) done and bring their reports on their respective days of the interview based on which treatment and referral was given wherever required.

Data entry was made in excel sheet in codes and analysis was done using SPSS software 23.0. Descriptive statistics were used to describe the socio-demographic characteristics, menstrual history, diet history, coexisting medical conditions and health seeking behaviour of the nursing students. All the above mentioned parameters were measured in percentages.

RESULTS

The study involved 280 nursing students who consented to attend the interview out of which 37%, 31% and 32% students belonged to 1st year, 2nd year and 3rd year respectively (Table 1).

Table 1: Demographic data of the nursing students.

Variables	No. of students (N)	Percentage (%)
Age (in years)		
18-19	120	42.8
20-21	137	48.9
22-23	23	0.08
Training year		-
I	103	37
II	87	31
III	90	32
Region		-
Urban	135	48.2
Rural	145	51.7
Total no. of family members		
2-5	91	33.2
6-10	63	61.7
11-15	14	0.05
Socio-economic class		
Upper	18	6.4
Upper-middle	100	35.7
Lower-middle	162	57.8

Majority of the students were young adults of age 19-21 years (Table 1). Most of the students belonged to lower middle class and 51.7% of the students belonged to rural areas specially Sindhudurg, Nandurbar and Buldhana districts of Maharashtra (Table 1). Their dietary history depicted that there was no consumption of ragi, jowar, dry fruits and non-veg in 75.7%, 77.8%, 54.64% and 23.9% of the students respectively. The results showed

very low consumption of water in the students. Out of the total 280 students, only 36.07% consumed green leafy vegetables only once a week and 47% of the students missed their meals which are a matter of great concern as the nursing students serve as the vital component of the healthcare industry and their health issues and nutrition should be given a prior importance.

The study showed that 67.8% of the students were underweight (BMI less than 18.5) and 56.07% of the students were anaemic (Hb less than 12 gm/dl). Around 47.1% and 32.1% of the students had frequent backache and neck pain respectively. Health seeking behaviour among the nursing students was quite commendable as 82% of them seeked healthcare for minor and major illnesses from the same hospital setup while rest of them consulted a general practitioner and took self-medication. Out of the total 280 students, only 1.07% of the students did not consult anybody for the concerned ailments.

When BMI of urban and rural students was compared, under-nutrition was found to be more prevalent in students coming from rural areas and the range of normal BMI was found to be less in rural areas as compared to students from urban areas (p=0.041) (Table 2).

Table 2: Comparison of BMI, anaemia and health seeking behaviour in urban and rural nursing students.

	Urban n (%)	Rural n (%)
BMI	11 (70)	11 (70)
<18.5	91 (62.7)	99 (73.3)
18.5-24.9	50 (34.4)	29 (21.4)
24.5-29.9	4 (2.7)	7 (5.1)
P value	0.041001	-
Chi-square statistic	6.3883	
Anaemia		
<12	65 (48.5)	92 (63.01)
12 or >12	69 (51.4)	54 (36.9)
P value	0.014557	
Chi-sqaure statistic	5.9693	
Health seeking behaviour		
KEM hospital	119 (77.2)	111 (88)
Self medication	28 (18.18)	9 (7.1)
No consultation	7 (4.5)	6 (4.7)
P value	0.0249	
Chi-square statistic	7.3858	

The next major problem that is anaemia was found to be more commonly seen in students coming from rural areas as compared to urban areas (p=0.014) (Table 2).

The health seeking behaviour was observed to be better among the urban students than the rural students (p=0.0249) (Table 2).

DISCUSSION

The study was conducted to assess the health status and health seeking behaviour of nursing students in a tertiary care hospital in Mumbai. Majority of these students belong to the age group of adolescents and young adults. The two major problems in this age group were anaemia and malnutrition.

The prevalence of anaemia among the nursing students was 56.07%. This corresponds to an ICMR study by Toteja and Singh who obtained data from 16 districts of 11 states through district nutrition projects, where prevalence of anaemia among adolescent girls has been found to be as high as 90.1%.8 In this study the anaemia was found to be more prevalent in rural students. Similarly, studies on prevalence of anaemia from different states of rural India, reported high prevalence of anaemia from 46-98%. 9-11 Sindhu in a study carried out among 265 adolescent girls of Amritsar also discovered high prevalence (70-75%) of anaemia. 12 Considering this, all young nursing students should be appraised about high prevalence of anaemia and regular checking of haemoglobin level should be ensured among them. With increasing age in the professional course there was increase in prevalence of anaemia among students which also corresponds with the year of study. The difference between the prevalence of anaemia in rural and urban students was found to be statistically significant as the students coming from rural areas are suddenly exposed to the urban lifestyle which might lead to the changes in dietary patterns thus leading to anaemia.

As the nursing students have to put in very long hours, this increasing trend of anaemia in them will reduce their work efficiency. Their potential will drastically reduce and they won't be able to give full concentration to their daily work. The nursing students will be more prone to certain infections which might lead to their absence from work. This will directly affect the healthcare industry as the nursing students play a very important role in providing healthcare. Thus, regular screening of Haemoglobin in nursing students and educating them about the importance of healthy diet is essential.

In the present study 67.8% of the nursing students were underweight and 4% were found at high risk of overweight and obesity. Under-nutrition was found to be more prevalent in rural students, and this difference of BMI in rural and urban students was found to be significant. Similarly, Choudhary et al reported that 68.52% of adolescents had BMI less than 18.5 in rural area of Varanasi. The extent of under-nutrition was higher (67.8%) in our sudy in comparison to 36.49% of under-nutrition reported by Mukhopadhya et al. The findings in the study of Shivaramakrishna et al reported that there is higher prevalence of under-nutrition in adolescent girls, which is similar to our study. Similarly Under-nutrition was prevalent among the rural adolescent girls of Ethiopia. The correlation between nutritional

status and demographic characters are similar to the study done by Choudhary et al and Ashok.¹⁷ In the present study, Under-nutrition might be attributed to overcrowding and lower socioeconomic class.

The other problem which was seen in the nursing students was their water consumption which was very low. Most of the students consumed only 4 to 5 glasses of water. Low consumption of water might lead to renal stones which will reduce their work efficiency. Apart from this, due to intense heat in Mumbai, lack of water might lead to intense dehydration and even heat stroke. Dehydration can cause severe weakness which will lead to their absenteeism from the work. Thus, nursing students should be counselled about the adequate water consumption along with the healthy diet.

In this study it was found that most of the nursing students consulted the doctors of the same hospital set up for minor and major ailments and health seeking behaviour was found to be better among urban students as compared to rural students which might be due the fact that awareness regarding the health hazards among urban students is more profound. Not many studies have been done regarding health seeking behaviour of nursing students, so, future studies should be conducted in this aspect as it is essential for the nursing students to lead a healthy life considering their role as future nurses and role models in public health intervention

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Institutional Ethics Committee

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