

Predictors of Happiness among Budding Nurses: Across-Sectional Web-based Study among Indian Nursing Students

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Abstract

Introduction: Happiness is a fundamental need of human beings and it is vital aspect in the development and training of budding nurses as future nurse. However, budding nurses feel under stress and low level of happiness. **Aim:** The present study aimed to investigate happiness level and its predictors among budding nurses in India. **Methods:** This cross-sectional, multicentric study was performed in 2021 on conveniently selected 908 budding nurses studying in different nursing institutions in India. Data were collected using a researcher made demographic questionnaire and the Oxford Happiness Inventory. Data were analyzed by using descriptive and inferential statistic. **Results:** Among 996 enrolled budding nurses, 908 were analyzed. The mean happiness scores of them were 126.75 ± 19.69 (score range 29-174). The significant predictors of budding nurses happiness were motivational factor to join nursing ($p < 0.001$), exercise routine ($p < 0.001$), habit of substance abuse ($p = 0.008$), perceived health status ($p = 0.004$), relationship with family members ($p = < 0.001$), relationship with teaching faculty ($p = 0.048$) and relationship with friends ($p < 0.001$). **Conclusion:** Budding nurses in India, have moderate level of happiness. Happiness is influenced by various factors. Nurse administrators and educators, in developing curriculum and activities, need to pay special attention to budding nurses' happiness and its predictors.

Keywords: Budding nurses, happiness, nursing, predictors, students.

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INTRODUCTION

Happiness, one of the most fundamental needs of human beings, the most imperative for human strength and the most crucial impulse for human endeavor has different meanings like experience of joy, containment, satisfaction with total life or positive well being, a sense that one's life is good, meaningful and worthwhile [1]. It frequently termed subjective well being, comprises three key factors: amount of joy or positive emotions, absence of gloomy and satisfaction with one's life over a sustained time periods [2].

Happiness promotes creativity, helps individual to attain their goals with more ease, improve decision making competence [3, 4], life satisfaction and quality of life, alleviates negative emotions, and promotes physical and mental health and enables individual to enjoy their lives [5]. It also helps people to become more sociable and more successful; that is, if

university students feel sufficient happiness during their college life, they can be more successful in their academics and are even more happy and productive in their further studies and jobs. Because of this, happiness is thought to be an imperative yardstick of a joyful and successful life [6].

Happiness play a vital role in achieving the goals to all professionals, particularly the nursing professionals [1], because nursing professionals are in direct and continue connection with the clients, families and society whose unique needs require nursing professionals to be compassionate, affectionate, self-confident, enthusiastic, pleased, creative, caring, energetic, skilled and have good knowledge. All of these characteristics are directly related with the level of happiness [7-9].

In particular, happiness of budding nurses is very much needed as they are expected to be future

nurses. When budding nurses live a life happily during their training, they can achieve success in all phases of life such as create happiness among people, have more interest in patient care, have more satisfaction and less job stress [10]. In addition, happiness is directly linked with better mental and physical health, which is necessary for nurses to care for patients, families and society [11].

Studies reported that that student nurses experience psychological problems such as irritability, high stress and depression due to heavy curriculum, exposure to patients' suffering, problems in personal relationship and difficulties during clinical practice and thereby inversely related to their happiness and quality of care [1, 12-13]. It was also reported that student nurses experience more academic stress and less subjective well-being than students from non nursing disciplines [6, 14].

India is ranked on 114 out of 153 countries in happiness index that is with lower 10 in world happiness report 2020 [15]. Students of India may have decreased level of happiness that may adversely affect their learning and may have the negative impacts on their endurance, honesty, diligence, determination, self-awareness, and loves toward human and environment [16]. Thus, increasing the happiness of budding nurses in India is a top priority in nursing education. As there are very limited studies on level of happiness and the predictors budding nurses' happiness in India, additional study is needed. Consequently, this study was planned and conducted to ascertain happiness and its predictors among Indian budding nurses.

SUBJECTS AND METHODS

Study design and sampling

This cross-sectional, structured questionnaire based online survey was done using Google forms from January 2021 to February 2021 on budding nurses who were studying in government and private nursing institutes in North India. A convenience sample of 908 budding nurses was participated in this study. Eligibility criteria were: consent for voluntary participation, studying in nursing diploma, graduation and post-graduation programme. Incomplete happiness questionnaires were excluded from the study.

The sample size was estimated using G*power 3.1.9.6 [17]. With consideration of 0.95 study power, to have an effect size of 0.10 and to use multiple regression with seventeen predictors, minimum 133 participants were needed for present study [17]. But in the present study we did not restrict number of participants because it was a multi-centric online survey. Furthermore, a large sample survey provides more accurate and increase the generalizability of findings [18, 19].

Measurement tools

Data collection instruments were a researcher-made demographic characteristics questionnaire and the Oxford Happiness Inventory (OHI). The first questionnaire included demographic characteristics of the participants and this part contained; 17 items on nursing students' course of study, gender, nature of institute, exercise routine, habit of substance abuse, duration of sleep, presence of any chronic disease, parent's occupation, monthly family income, habitant, type of family, motivational factor to join nursing, type of residence during study of nursing, perceived health status, relationship among family members, relationship with teaching faculty, relationship with friends. This questionnaire was developed based on the existing literature and its face and content validity were assessed by 11 experts from the field of nursing and psychology. The questionnaire was amended based on their comments. The reliability of the questionnaire was evaluated through the test-retest method, in which it was completed twice with a two-week interval by 20 nursing students of Jodhpur. Test-retest reliability was found 0.91.

The second study instrument was the standardized OHI. It includes 29 items in six subscales, (self-esteem, satisfaction with life, efficiency, positive effect, sense of control, and mental health). OHI items are responded on a six point Likert scale from 1 (Strongly disagree) to 6 (Strongly agree). Therefore, the total OHI scores range from 29 to 174 and the higher the score, the greater the happiness. The total OHI score is categorized into three levels and interpreted as follows: less than 100: low happiness; 101to131: moderate happiness; and higher than 132: more happiness [1]. The reliability of this scale was measured by Cronbach's α and it was 0.93.

Data Collection

For data collection, the first researcher referred to the nursing faculties of various nursing institute, explained the aim and the methods of the study to nursing faculties and administrators, and obtained necessary permissions to carry out the study. Then questionnaires were sent to eligible nursing students with the help of Google forms. Students were asked to complete questionnaire and submit it with mail to avoid duplicity of data.

Ethical consideration

Necessary permissions and ethical approvals for this study were secured from the Institutional Ethical Committee of Pacific Medical University (with the no. PMCH/IEC/21/0118 dated March 07, 2021). An electronic written informed consent was obtained from each participant before they further responded for the online survey questions.

Students were provided with explanations about the study and also with the opportunity to

personally complete the questionnaires in a private place without the presence of researcher, faculty, friends and family members. We also ensured participants about the confidentiality of their data and of their anonymity.

Statistical analyses

Descriptive and analytical data analyses were executed by using SPSS version 20.0 (IBM Corp., Armonk, NY, USA). Continuous variables were summarized using the measures of central tendency and dispersion, while categorical variables were presented via absolute and relative frequencies. Data were assessed for normality distribution via Kolmogorov-Smirnov test. After that, data analysis was performed in two steps. In the first step, i.e. Univariate data analysis, the student t-test and the ANOVA or their non-parametric comparable i.e. the Mann-Whitney U and the Kruskal-Wallis test were performed to analyze differences in happiness scores by participants' demographic variables. Furthermore, the Pearson and the Spearman correlation analyses were done to explore the relationships of happiness with normally and non-normally distributed other variables respectively. In the second step, stepwise multiple linear regression analysis was employed to identify the effects of independent variables on participants' happiness and also to eliminate the effects of extraneous variables. Variables

with a P value of less than 0.2 in univariate analysis were entered into the regression model. The level of significance was set at less than 0.05.

RESULTS

A total of 996 responses returned after one round of follow-up and the items of 78 and 10 questionnaires had been found duplicate and incomplete respectively. Therefore, 88 questionnaires were excluded and data analysis was performed on 908 questionnaires. The majority of participants were in B.Sc. nursing programme (79.41%), no habit of substance abuse (94.71%), free from any chronic illness (87.89%), have good relation with family members (82.82%) and friends (73.13%). Approximately two third of participants reported that they enrolled in private institutions (65.64%), belongs to low or lower middle family (63.11%), living in nuclear family (62.11%). Approximately half of participants were female (55.18%), joined nursing with their own interest (50.33%), rural habitant (56.39%), at present residing in hostel (46.59%), take sleep 6 to 10 hours (56.94%), perceived their health status very good (51.10%) and having very good relation with teaching faculty (55.84%). The mean of students' happiness was 126.75 ± 19.69 out of a possible score range of 29 to 174 (Table 1).

Table 1: Happiness scores and correlation with demographic variables among nursing students

Demographical Variable	F (%)	Mean (SD)	Test scores	
			f / t (*)	P
Course of Study				
GNM	148 (16.3%)	125.32 (20.33)	0.483	.617
B.Sc. Nursing	721 (79.41%)	127.06 (19.59)		
M.Sc. Nursing	39 (4.3%)	126.54 (18.38)		
Motivational factor to join nursing				
Own interest	457 (50.33%)	131.19 (17.85)	20.019	.000
Advise of parents/friends/relatives	212 (23.35%)	121.87 (19.86)		
Job opportunity	185 (20.37%)	124.68 (20.5)		
No other option for higher study	54 (5.95%)	115.41 (20.6)		
Gender				
Male	407 (44.82%)	127.71 (19.43)	1.33 [†]	0.87
Female	501 (55.18%)	125.97 (19.81)		
Nature of Institute				
Government	312 (34.36%)	126.63 (21.86)	-0.14 [†]	.009
Private	596 (65.64%)	126.82 (18.4)		
Parent occupation				
Government job	273 (30.07%)	126.41 (19.2)	.929	.426
Private Job	198 (21.81%)	127.56 (20.08)		
Business	101 (11.12%)	123.97 (20.17)		
Agriculture	336 (37%)	127.39 (19.6)		
Monthly family income				
<5000	229 (25.22%)	125.58 (18.9)	.535	.659
5001-20000	344 (37.89%)	127.13 (19.52)		
20001-70000	262 (28.85%)	126.76 (20.68)		
>70000	73 (8.04%)	128.63 (18.95)		
Permanent residential area				
Rural	512 (56.39%)	127.15 (18.99)	.549	.578

Town	204 (22.47%)	126.99 (20.52)		
City	192 (21.15%)	125.44 (20.47)		
Residence during study of nursing				
Hostel	423 (46.59%)	126.17 (19.71)	2.755	.041
Outside hostel with parents	296 (32.6%)	126.8 (19.37)		
Outside hostel with room mate	118 (13%)	125.01 (19.1)		
Outside hostel alone	71 (7.82%)	132.89 (20.64)		
Type of Family				
Nuclear	564 (62.11%)	126.83 (19.92)	0.15 ^t	0.38
Joint	344 (37.89%)	126.63 (19.22)		
Exercise routine				
No exercise	247 (27.2%)	119.32 (20.37)	30.238	.000
Occasional (one day in a week)	351 (38.66%)	127.45 (17.83)		
Regular (minimum four days in a week)	310 (34.14%)	131.87 (19.29)		
Habit of substance abuse				
No	860 (94.71%)	127.22 (19.31)	3.411	.017
Tobacco chewing	7 (0.77%)	114.86 (20.47)		
Smoking	16 (1.76%)	115.81 (21.38)		
Alcohol	25 (2.75%)	121 (26.29)		
Duration of sleep				
< 6 hours	290 (31.94%)	126.14 (20.11)	4.432	.004
6 to 10 hours	517 (56.94%)	128.13 (19.22)		
> 10 hours	14 (1.54%)	113 (22.53)		
Not certain	87 (9.58%)	122.83 (18.96)		
Perceived health status				
Very good	464 (51.1%)	130.25 (19.24)	31.905	.000
Satisfactory	412 (45.37%)	124.51 (18.04)		
Unsatisfactory	32 (3.52%)	104.88 (26.62)		
Presence of any chronic disease				
No	798 (87.89%)	127.57 (18.94)	31.905	.000
Hypertension	35 (3.85%)	120.6 (24.49)		
Diabetes mellitus	18 (1.98%)	113.56 (20.69)		
Thyroid Dysfunction	9 (0.99%)	118 (20.21)		
Migraine & Headache	10 (1.1%)	134.1 (11.84)		
Other	38 (4.19%)	121.61 (25.84)		
Relationship with family members				
Very good	752 (82.82%)	129.01 (18.82)	34.764	.000
Satisfactory	145 (15.97%)	116.98 (19.43)		
Unsatisfactory	11 (1.21%)	101 (21.98)		
Relationship with teaching faculty				
Very good	507 (55.84%)	130.71 (18.49)	29.300	.000
Satisfactory	367 (40.42%)	122.62 (18.99)		
Unsatisfactory	34 (3.74%)	112.29 (26.92)		
Relationship with friends				
Very good	664 (73.13%)	129.91 (18.63)	46.542	.000
Satisfactory	220 (24.23%)	120.03 (17.99)		
Unsatisfactory	24 (2.64%)	100.88 (26.93)		
Total Mean 126.75 (±19.69)				

The results of univariate analysis illustrated that students' happiness was significantly differed by motivational factor to join nursing ($F=20.019$, $p<0.001$), nature of institute ($t=0.14$, $p<0.009$), residence during study ($F=2.755$, $p<0.041$), exercise routine ($F=30.238$, $p<0.001$), habit of substance abuse ($F=3.411$, $p<0.017$), duration of sleep ($F=4.432$, $p<0.004$), perceived health status ($F=31.905$, $p<0.001$), presence of any chronic illness ($F=31.905$, $p<0.001$),

relationship with family members ($F=34.764$, $p<0.001$), relationship with teaching faculty ($F=29.300$, $p<0.001$) and relationship with friends ($F=46.542$, $p<0.001$; Table 1).

The findings of multiple regression analysis revealed that the strongest demographic variables related to happiness were motivational factor to join nursing ($p<0.001$), exercise routine ($p<0.001$), habit of

substance abuse ($p=0.008$), perceived health status ($p=0.004$), relationship with family members ($p=0.001$), relationship with teaching faculty

($p=0.048$) and relationship with friends ($p<0.001$; Table 2).

Table 2: The findings of multiple linear regressions to identify predictors of nursing students' happiness

Model	Unstandardized Coefficients		Standardized Coefficients	95.0% Confidence Interval for B		t	Sig.
	B	Std. Error	Beta	Lower Bound	Upper Bound		
(Constant)	130.490	1.845		126.869	134.111	70.734	0.000
Motivational factor to join nursing	-2.798	0.652	-0.136	-4.079	-1.518	-4.290	0.000
Nature of Institute	-1.769	1.308	-0.043	-4.337	0.799	-1.352	0.177
Type of residence during study of nursing	-0.400	0.674	-0.019	-1.724	0.923	-0.593	0.553
Exercise routine	5.205	0.767	0.207	3.700	6.710	6.787	0.000
Habit of substance abuse	-2.877	1.081	-0.082	-4.998	-0.757	-2.663	0.008
Duration of sleep	0.227	0.711	0.010	-1.169	1.624	0.320	0.749
Perceived health status	-2.319	1.231	-0.067	-4.735	0.097	-1.884	0.060
Presence of any chronic disease	-0.556	0.537	-0.032	-1.610	0.498	-1.035	0.301
Relationship among family members	-5.280	1.609	-0.112	-8.438	-2.122	-3.281	0.001
Relationship with teaching faculty	-2.465	1.244	-0.072	-4.907	-0.024	-1.982	0.048
Relationship with_ riends	-6.079	1.383	-0.158	-8.793	-3.365	-4.396	0.000

a. Dependent Variable: Total happiness

DISCUSSION

The present study was done to investigate the happiness and factors that affect it among a group of nursing students in India. The mean of nursing students' happiness score was 126.75 (± 19.69) indicating moderate level of happiness among nursing students. A study reported a moderate level of happiness among South Korean nursing students with a happiness mean score of 4.25 ± 0.6 out of maximum six points [6]. Another study reported similar results where Canadian university students showed moderate level happiness with mean score of 4.41 (on a 1-6 point scale) [19]. All these studies present that nursing students have moderate happiness, and suggests the nursing student is happy. The happier students are more likely to be successful in their clinical and academic training. Therefore, they will be able to manage job stress and perform better in all aspects of life [20]. Hence, every effort should be made by nursing institutions to enhance the happiness of Indian nursing students.

Multivariate analysis in this study revealed that motivational factor to join nursing, exercise routine, habit of substance abuse, perceived health status, relationship with family members, relationship with teachers and relationship with friends were the predictors of happiness among nursing students. In terms of motivational factors to join nursing, students who joined nursing because of their own interest expressed the highest happiness scores compared to those who joined nursing based on other factors and this difference was statistically significant. Results of the present study were in line with previous studies, in which students who joined nursing because of their

interest showed higher level of happiness than those who joined nursing based on family members or friends advised or job opportunity or other factors [6, 21].

Students who selected their subjects according to one's interest or desire are confident and internally motivated; therefore, they are interested and willing to study and positive and for their future [22]. On the other hand, nursing students who elected nursing course based on recommendation of family, friends or others, job opportunity or no other options for higher study experienced uncertainty about their future and have no internal satisfaction. It shows that students' own interest to choose nursing affect their happiness and play a vital role for their future job satisfaction [23].

The findings of our study have contradiction with a study, in which investigators determined the reasons for choosing nursing among Korean clinical nurses and reported that 65.5% nurses choose nursing based on others' advise and guaranteed employment compared to those who select nursing because of their own interest (31.5%) [24]. It shows an urgent need to plan and implement a carrier counselling programme to students so that they can think and decide about their future carrier beginning in high school life. Furthermore, after joining nursing college, information related to carrier in nursing should be provided to them in order to determine the link between their interest and major areas of study.

Study results also found exercise routine as another predictor of happiness among nursing students. Although we could not retrieve any study into the impact of exercise routine of nursing students on their

happiness, studies from other discipline and population showed a significant positive association between students exercise routine and happiness [25]. Therefore, motivating nursing students for developing regular exercise routine can enhance their happiness level.

We also found habit of substance abuse as another significant factor of nursing students' happiness. While there are no studies to determine the habit of substance use with happiness among nursing students for us to compare our results with, findings on association between well being and substance abuse among students exist. Results of a previous study reveal a significant negative association of habit of substance abuse with wellbeing and life satisfaction among individual which are similar to the present study [26].

Another significant predictor related to the nursing students' happiness was perceived health status where student who perceived themselves as healthy showed statistically significantly higher happiness scores compared to those who perceived their health status not good. This result coincides with other studies show a significant correlation between health related factors and happiness among university and students in Iran, and United States [23, 27]. Therefore, it is important aspect which should be taken care seriously during student life and measures should be initiated to make student healthy.

The final predictors behind nursing students' happiness were their relationships with family members, teachers and friends. In line with finding of the present study, studies done in Korea revealed a positive influence of social support on nursing students' happiness [28]. Support and healthy relationship from close people have positive impact on happiness, while unsatisfactory relationship or loneliness causes unhealthiest, discomfort and misfortune [27, 29]. In brief, the transition from school to university is a crucial period of adapting to new social environment and building new personal relationships with people outside of their family and parent; thus, feeling support by significant people like friends, senior and teaching faculty can have valuable effects on happiness [30]. Therefore, nursing administrators and educators should implement mentorship programme and assume the role of supportive and emotional mentors to make students happy.

A limitation of the present study is that nursing students were selected by using convenience sampling technique and may cause selection bias. In addition, all information collected by participants was self-reported, and no cross validation of these data was performed. Therefore, survey findings should be generalized cautiously.

CONCLUSION

Study results denote that nursing students, who were studying in different nursing institutions in India, have moderate level of happiness. The predictors of their happiness, including motivational factor to join nursing, exercise routine, habit of substance abuse, perceived health status, relationship with family members, teachers and friends. Nursing administrators and educators can use these findings to develop strategies for enhancing the nursing students' happiness and thereby future life. First, activities such as mentoring programme between students, seniors and faculty, could be executed to enhance social support by significant people. Second, extracurricular activities like sports, should be included in curriculum. Concerning future studies, longitudinal studies are recommended to assess how happiness levels switch throughout course of study and effects transferred to job setting in a view to job satisfaction, performance and happiness level.

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