

Mindfulness State among Undergraduate Students in Selected Constituent Nursing Campuses of the Institute of Medicine, Tribhuvan University

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ABSTRACT

Introduction: Mindfulness has been shown to enhance students' emotional well-being, self-awareness, and overall psychological resilience, thereby contributing to improved academic performance. The study aimed to assess the state of mindfulness among undergraduate nursing students in selected constituent nursing campuses of the Institute of Medicine, Tribhuvan University.

Methods: A cross-sectional research design was adopted among 143 Bachelor of Science in Nursing students of the 1st, 2nd, and 3rd years from Maharajgunj Nursing Campus and Pokhara Nursing Campus, selected through a probability proportional to size sampling method, using the validated and pretested English version of the Five Facet Mindfulness Questionnaire for data collection. Ethical approval obtained from Institutional Review Committee of Tribhuvan University, Institute of Medicine. Data were analyzed using descriptive statistics such as mean, standard deviation, percentage, median, and quartiles, as well as chi-square to measure associations. Statistical Package for the Social Sciences (SPSS) version 16.0 was used to analyze the data.

Results: More than half of the respondents (52.4%) had sufficient mindfulness while nearly half (47.6%) demonstrated insufficient mindfulness state. No association between mindfulness state and socio-demographic variables observed. The significant association between mindfulness state and habit of self-practiced meditation and physical exercise ($p = 0.032$ and 0.018 respectively).

Conclusion: Half of the respondents had sufficient state of mindfulness. Majority of the respondents had higher score on the aspects of mindfulness on observing, acting with awareness and describing whereas lower on non-judging and non-reactivity. Significant association between mindfulness state and self-practiced habit of physical-exercise and meditation. Hence, it is need to prioritize physical-exercise and meditation among undergraduate nursing students for sufficient mindfulness state.

Keywords: Mindfulness, nursing campuses, undergraduate students

INTRODUCTION

Mental health is considered as a vital part of well-being for human beings. Academic and emotional factors are mainly responsible for the development of stress among undergraduate students.¹ It was proven that due to high level of

anxiety and stress related to academic pressure and other life's related responsibilities among nursing students resulting narrowing of perceptual field, decreasing retention of learned material and increasing failure.² Mindfulness defined as moment-to-moment awareness, generating by paying attention in the present situation.

It is an orientation basically characterized by curiosity, openness, and acceptance.³ For greater awareness and deeper insight, a higher and more stable level of mindfulness is required.⁴

A cross-sectional study among 763 nursing students in Guangzhou, China using multistage cluster sampling. The study found that 22.9% of participants had high depressive symptoms and also identified several associated risk factors, including academic performance, academic stress and interest in major, occupational future, interpersonal relationships, exercise frequency, self-reported health, social support, parental education, and decision-making autonomy.⁵ From the students' perspective, it reveals that academic path of nursing is full of obstacles and stress-generating situations that have a negative impact on academic success and on other aspects of life.⁶ Also a qualitative study found that mindfulness was positively associated with coping skills and well-being, while lack of mindfulness had negative implications.⁷

The previous study conducted among management students revealed that out of 259 participants, nearly half of the respondents (50.6%) had insufficient mindfulness and suggested to conduct study in different study populations in Nepal.⁸ Limited studies were conducted in Nepal to address mindfulness state on nursing students. This gap underscores the need for studies focused on this topic among nursing students. Hence, this study aims to assess the mindfulness state among undergraduate nursing students in selected constituent nursing campuses of Institute of Medicine, Tribhuvan University and measured the association between the mindfulness state and selected demographic variables. Thus, the results obtained from this study provides baseline information about mindfulness state of the nursing students in order to promote their mental health and timely completion of the nursing course.

METHODS

A cross-sectional study design was adopted to collect data from undergraduate Bachelor of Science (B.Sc.) in Nursing students currently

studying in 1st, 2nd and 3rd year of selected constituent nursing campuses of Institute of Medicine, Tribhuvan University from 2079/04/22 to 2079/05/20. Before collecting data ethical approval was obtained from Institutional Review Committee (IRC) of Institute of Medicine (Research Department) with IRC Reference: 34(6-11)E². The study was conducted in two purposively selected constituent nursing campuses of the Institute of Medicine, Tribhuvan University: Maharajgunj Nursing Campus and Pokhara Nursing Campus. Students were grouped according to academic year as B.Sc. Nursing 1st year (80), 2nd year (59), and 3rd year (58), with a total population of 197 students. The sampling fraction was calculated as $143/197 = 0.725$ (72%). After applying the sampling fraction technique, 58 students were selected from the 1st year, 43 from the 2nd year, and 42 from the 3rd year. Data collected from respondents who were willing to participate after obtaining written informed consent were included in the study. Those who were not willing to participate reported as they were diagnosed as any psychiatric illness and under psychiatric medication, recently done surgery within 6 months were excluded in this study. Respondents were assured that the information they provided would be used for research purposes only.

English version of validated, pretested and self-administered tool, Five Facet Mindfulness Questionnaire (FFMQ) included 39 statements related to mindfulness with Likert scale was rated on a 5-point scale format rating from Never or very rarely true = 1, Rarely True = 2, Sometimes True = 3, Often True = 4, very often or Always True = 5.^{10 11} The scale has been previously used in Nepalese research study which showed the calculated Cronbach's alpha 0.789.8 Statistical Package for the Social Sciences (SPSS) version 16.0 was used to analyze the data. Descriptive statistics such as mean, frequency, percentage, standard deviation, median, quartiles and mean percent were used to describe the socio-demographic and different facet of mindfulness. Inferential statistics such as Chi-square was used to measure the association between the level of mindfulness state and selected demographic variables.

RESULTS

Among 143 respondents majority (62.2%) of the respondents were up to 20 years of age (median age is 20 years with range 18-30). Regarding ethnicity majority (60.1%) of the respondents

belonged to Brahmin/Chhetri. More than one-third (40.6%) were from B.Sc nursing 1st year. Most of the respondents (76.9%) were from nuclear family. Almost all respondents (98.6%) and (99.3%) perceived peer attachment and family support respectively.

Table 1. Socio-demographic Characteristics of Respondents (n=143)

Variables	Number	Percentage
Age in completed years		
<20 years	89	62.2
≥20 years	54	37.8
<i>Median Age=20years, Range of Age: 18-30</i>		
Ethnicity		
Brahmin/Chhetri	86	60.1
Janajati	29	20.3
Madhesi	16	11.2
Muslim	4	2.8
Religion		
Hinduism	136	95.1
Buddhism	4	2.8
Islam	2	1.4
Christianity	1	0.7
Place of residence		
Rural	25	17.5
Urban	118	82.5
Educational level (year of studying)		
B.Sc. Nursing 1st year	58	40.6
B.Sc. Nursing 2nd year	43	30.1
B.Sc. Nursing 3rd year	42	29.4
Family type		
Nuclear	110	76.9
Joint	30	21.0
Education level of father		
Cannot read and write	-	-
Informal Education	11	7.7
Basic level (Up to class 8)	20	14.0
Secondary level (Class 9 to 12)	57	39.9
Higher Education (Bachelor level to above)	55	38.5
Education level of mother		
Cannot read and write	-	-
Informal Education	31	21.7
Basic level (Up to class 8)	34	23.8
Secondary level (Class 9 to 12)	58	40.6
Higher Education (Bachelor level to above)	20	14.0
Perceived peer attachment	141	98.6
Perceived family support	142	99.3

Table 2 shows nearly half of respondents (46.2%) had self-practiced habit of meditation. Less than one-fourth (19.6%) respondents practiced meditation occasionally per week whereas more than one-third respondents (39.2%) had self-

practiced meditation for the duration of 5-<15min. About more than half (58.7%) of the respondents had self-practiced habit of physical exercise.

Table 2. Respondents' Self-Practiced Habit of Meditation and Physical Exercise (n=143)

Variables	Number	Percent
Self-practiced habit of meditation	66	46.2
Frequency of self practiced meditation per week		
Occasionally	28	19.6
Daily	26	18.2
Once	5	3.5
Twice	5	3.5
Thrice	2	1.4
Duration of self practiced meditation		
5-<15min	56	39.2
15-<30min	7	4.9
30-<45min	2	1.4
1 hour and more	1	0.7
Self-practiced habit of physical exercise	84	58.7
Frequency of self practiced physical exercise per week		
Daily	32	22.4
Once	6	4.2
Twice	11	7.7
Thrice	9	6.3
Occasionally	26	18.2

Table 3 reveals majority of the respondents 72.4% and 65.4% had higher scoring on observing and acting with awareness respectively whereas lower scoring 59.7% and 53.3% on non-reactivity and non-judging respectively.

Table 3. Mean Score of Five Facet of Mindfulness Questionnaire (n =143)

Five Facets of Mindfulness	Possible Range	No. of Items	Maximum Possible Score	Obtained Range	Mean±SD	Mean Percentage
Observing	8-40	8	40	17-40	28.99±5.11	72.4
Acting with Awareness	8-40	8	40	10-40	26±6.22	65.4
Describing	8-40	8	40	8-32	25.18±5.04	62.9
Non-Judging	8-40	8	40	8-32	21.34±5.51	53.3
Non- Reactivity	7-35	7	35	9-33	20.90±4.66	59.7
Total	39-195	39	195	85-154	122.41±26.54	62.7

Table 4 depicts that among 143 respondents more than half (52.4%) of the respondents had sufficient mindfulness state whereas less than half (47.6%) of the respondents had insufficient mindfulness state.

Table 4. Overall Level of Mindfulness State of the Respondents

Mindfulness State	Number	Percentage
Insufficient (≤ 122.41)	68	47.6
Sufficient (≥ 122.41)	75	52.4
Total	143	100

Mean Mindfulness Score (SD) = 122.41(26.54) Min obtained score-85, Max score -154, Possible score-85-154

Table 5 shows that there is significant association between mindfulness state and habit of self-practiced meditation of the respondents (p-value 0.032). Similarly, significant association between mindfulness state and habit of self-practiced

physical exercise of the respondents (p-value 0.018) but age, ethnicity, educational level, type of family are not statistically significant with mindfulness state.

Table 5. Association between Mindfulness State and Selected Variables (n =143)

Variables		Mindfulness State		χ^2	p-value
		Sufficient No. (%)	Insufficient No. (%)		
Age in years					
≤20		47(52.8)	42(47.2)	0.012	0.912
>20		28(51.9)	26(48.1)		
Ethnicity					
Brahmin/Chhetri		46(53.5)	40(46.5)	0.094	0.760
Others		29(50.9)	28(49.1)		
Religion					
Hinduism		71(52.2)	65(47.8)	0.065	0.799
Others		4(57.1)	3(42.9)		
Place of Residence					
Rural		13(52.0)	12(48.0)	0.002	0.961
Urban		62(52.5)	56(47.5)		
Educational Level					
1styear		31(53.4)	27(46.6)	0.143	0.931
2ndyear		23(53.5)	20(46.5)		
3rdyear		21(50.0)	21(50.0)		
Type of Family					
Nuclear		59(53.6)	51(46.4)	0.270	0.603
Others		59(53.6)	17(51.5)		
Fathers' Education Level					
Below Secondary		20(66.7)	10(33.3)	3.078	0.079
Secondary & Above		55(48.7)	58(51.3)		
Mothers' Education Level					
Below Secondary		36(55.4)	29(44.6)	0.412	0.521
Secondary & Above		39(50.0)	39(50.0)		
Habit of Self-Practiced	Yes	41(62.1)	25(37.9)	4.599	0.032*
Meditation	No	34(44.2)	43(55.8)		
Habit of Self-Practiced					
Physical Exercise	Yes	51(60.7)	33(39.3)	5.579	0.018*
Frequency of Self-Practiced Meditation					
Regular (Daily)		19(67.9)	9(32.1)	0.680	0.410
Irregular		22(57.9)	16(42.1)		
Frequency of Self Practiced Physical Exercise					
Regular (Daily)		21(65.6)	11(34.4)	0.523	0.470
Irregular		30(57.7)	22(42.3)		

χ^2 Pearson's Chi-Square Test, *p value significant at <0.05 level

DISCUSSION

The study was conducted to find out the mindfulness state of the undergraduate students of selected constituent nursing campuses of Institute of Medicine, Tribhuvan University and its association with selected variables. The current study showed that the majority (62.2%) of the respondents were up to 20 years while median age of the respondents is 20 years within the range of 18-30 years of age. Most (82.5%) of the respondents from urban area, more than one-third (40.6%) were from B. Sc nursing 1st year. Most (76.9%) of the respondents belonged to nuclear family.

The current study assessed mindfulness state and calculated it as sufficient ($\geq$ mean score 122.41) and insufficient state ($<$ mean score 122.41). Based on findings, more than half of the respondents (52.4%) have sufficient mindfulness state whereas nearly half (47.6%) demonstrated insufficient mindfulness state. The finding was supportive with the previous study conducted in Nepal, which revealed out of 259 participants, 49.4% had sufficient mindfulness where as insufficient mindfulness was present in 50.6%.⁸ The findings of this study reveals that there was no any association between mindfulness state and socio-demographic variables like year of study (p value=0.931) at a 95% confidence interval. Similar findings were found in the previous study conducted at Kathmandu in which there was also no any association between mindfulness and sociodemographic variables like year of study (p value=0.422) at a 95% confidence interval.⁸

The current study shows that more than one third (42.6%) respondents who had habit of self practiced physical exercise and self practice meditation has sufficient mindfulness state compare to only (9.7%) respondents who don't perform physical exercise and meditation has sufficient mindfulness state. It is supported by the previous study that experiences meditators rated themselves higher than the non-meditators on the majority of the mindfulness facets.¹² The findings of this study reveal that respondents had rated themselves higher in observing (28.99 ± 5.11), acting with awareness (26 ± 6.22) and describing

(25.18 ± 5.04) and lower in non-reactivity and non-judging. The findings were quite similar when compared with the previous study done in Nepal that showed that participants responded higher in observing (3.14 ± 0.66) and describing (3.09 ± 0.56) and lower in acting with awareness, non-judging and non-reactivity.⁸ Likewise quite similar findings were observed when compared with another previous study that revealed that respondents rated themselves relatively high in the observing and describing facets of mindfulness.¹³

The strength of this study is validated research instrument used to assess the mindfulness state of the respondents. Limitations of this study were only two nursing campuses was included in the study so, possibility of generalization is limited. Questionnaire related to only self-reported physical exercise and meditation were asked, couldn't cover the practices. The study might be useful for integrating mindfulness interventions programs as non – credit hour in order to manage psychological distress of nursing students.

CONCLUSION

Half of the respondents had sufficient state of mindfulness. Majority of the respondents had higher score on the aspects of mindfulness on observing, acting with awareness and describing whereas lower on non-judging and non-reactivity. The significant association between habit of meditation and physical exercise so it is recommended to more focused on them to have sufficient mindfulness state among undergraduate nursing students.

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