Title: Spiritual Well-Being, Mindfulness, and Emotional Regulation Among Nursing Students

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Abstract

The capability of the student nurses to effectively control their emotions could strengthen their mindfulness, spiritual strength, and judgment and also clear the mind to learn and retain. It influences their duty and thus eventually enhances the standard of patient care. So, student nurses should be successfully transformed into the nursing profession with the qualities of spiritual well-being, mindfulness, and emotional regulation capacity towards the end of the nursing training program. Objectives: The study aimed to assess nursing students' spiritual well-being, mindfulness, and emotional regulation. Methodology: The study was a cross-sectional survey with a total of 500 BSc nursing students. Mental health variables of mindfulness, emotional regulation, and spiritual well-being were assessed using the mindfulness attention awareness scale, emotional regulation scale, and spiritual well-being scale. Results: On the level of mindfulness, 306 (47.8%) students were mindful all the time; on spiritual well-being, 291 (58.2%) had a high level of spiritual well-being, and the level of emotional regulation of the students were, i.e., emotional (cognitive) reappraisal 384 (76.8 %), and emotional (expressive) suppression 229 (45.8 %). There was a statistically significant moderate positive correlation between mindfulness, spiritual well-being, and emotional regulation.Conclusion: The study highlight's that the life of the nursing population has a significant moderate positive correlation between mindfulness, emotional regulation, and spiritual well-being. It is necessary to provide mindfulness, spiritual well-being, and emotional regulation activities in their curriculum to sustain their mindfulness, emotional regulation, and spiritual well-being throughout life.

Keywords: Spiritual well-being, mindfulness, emotional regulation, emotional reappraisal, emotional suppression, nursing students.

1. Introduction

Having a sense of spiritual well-being and mindfulness helps the individual to be sensitive to the needs of others, aware of their thoughts and feelings, and in control, thus allowing the person to handle their emotions in stressful situations. Coping with life situations is extremely important among nursing students. Nursing students are supposed to be educated on how to control their frustrations from time to time while performing patient care and in their personal life. So, spiritual well-being and mindfulness are supreme factors that promote student nurses' ability to modulate emotional reactions. Spiritual well-being is considered one of the significant components of the nursing profession. For this reason, careful attention to the spiritual well-being of student nurses can be effective in getting through the challenging situations of personal life and strengthening adaptive emotional reactions throughout life (1).

The ability to be mindful is an inborn human capacity. Attention improves awareness of actuality by shutting off the anticipated thoughts (2). The intention of being mindful encourages one to be more perfectly and brightly encounter personal thoughts, emotions, behavior, or experiences in daily life. Mindfulness is dominant in disconnecting individuals from automatic behavior, practice, and unhealthy emotional reactions. Inner assets of mindfulness will inspire the individual to point out or focus on the present moment and handle stressful situations, thus helping to cultivate emotional regulation strategies in life (3). Few studies report a unique relationship between emotional regulation and adaptive activities. The best thing is to prepare nursing students to integrate spirituality and mindfulness-based interventions. It helps them

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oversee their emotions one step ahead during their learning and practical exposure (4).

A crucial tool for helping someone cope with stressful situations is believed to be spiritual well-being (5). Spiritual well-being has multiple dimensions and depends on the viewpoint and the mindset of the person using it. For most of them, it is a state of positive feelings, behaviors, a sense of individuality, healthiness, gratification, happiness, passion, respect, positive attitudes, serenity, and peacefulness (6). This awareness can aid nurses in thinking about patient care glorified as a blessed job (7). A correlative study was done in Brazil to assess spiritual well-being and anxiety among nursing students and reported that activities like self-awareness classes, mindful movements, time for prayer, recreation, etc., can improve spiritual well-being (8).

Nursing tremendously depends on morality and a sense of responsibility to the other person, who can be sick or well. Nursing students reflect the nursing profession's future. Today's healthcare environment is becoming increasingly complex; aspiring nurses must establish a quality of life based on sound research to influence tomorrow's healthcare delivery. The investigator assumes that spiritual well-being, and mindfulness, can affect the personal and professional life of the nursing students, and that helps to regulate their emotions. The objectives of the study were to assess the relationship between spiritual well-being, mindfulness, and emotional regulation among nursing students.

2. Methodology

A cross-sectional survey design was adopted to determine the relationship between mindfulness, spiritual well-being, and emotional regulation among nursing students. The total number of participants was 500. The study was conducted at selected nursing colleges in Karnataka state, India. A purposive sampling technique was used to select the students from seven colleges. The inclusion criteria were students studying in the first year to the fourth year of B.Sc. nursing from selected nursing colleges of Karnataka. Formal administrative permission was obtained from the Dean, Manipal College of Nursing, MAHE, Manipal, Institutional Research Committee clearance was secured from Manipal College of Nursing, MAHE, Manipal (IRC 310/2021), and Ethical approval was obtained from the Institutional Ethical Committee of K.M.C. and K.H. Manipal (IEC:709/2021). The present study was registered in the Clinical Trial Registry of India (CTRI/2022/02/039960)." Informed consent was taken from all the participants through an online and onsite platform. The participant information sheet provided the participants with the required information regarding the study procedure. The following tools were used for the study:

2.1 Socio-demographic information

Socio-demographic profiles of all recruited participants were collected, which included age, gender, year of the study, place of stay, family type, the number of siblings, education of the father, mother, profession of the father, and profession of the mother, monthly family income and time spend for the daily spiritual activities. The content validity level of the tool was 0.90.

2.2 Spiritual well-being rating scale

A self-reported spiritual well-being five-point rating scale consists of 36 items under eight aspects of spiritual life. The spiritual well-being scale was based on an individual's experience towards loving God, happiness, hope, peacefulness, a sense of harmony, life satisfaction, community responsibility, and punishment. The top rating was 180, and the lowest score was 36. The content validity level of the tool was 0.87.

2.3 Mindfulness attention awareness scale

The MAAS ('mindful attention awareness scale') is a 15-item rating scale developed by Brown & Ryan, 2003 to assess one's ability to pay attention to the present moment. In this scale, attention is enlightened by a thoughtful awareness of current events. The levels of Cronbach's alpha, which measures internal consistency, range from 0.80 to 0.90. The top possible score was 90, and the lowest possible score was one.

2.4 Emotional regulation scale

The emotional regulation scale was developed by Gross, 2002. This tool has two sub-scales of emotional regulations, i.e., emotional suppression, and cognitive reappraisal. The scale consists of 10 items to evaluate participants' capacity to modulate or control their emotions based on emotional (cognitive) reappraisal and emotional (expressive) suppression. Each subscale was computed separately, and the top score indicates a higher level of emotional regulation. The cognitive reassessment and emotional suppression component had shown excellent Cronbach's alpha levels; 0.74 and 0.69, respectively.

3. Statistical analysis

Statistical Package for Social Sciences ("SPSS) Version 16.0 was used to analyze the data. Based on the study's objectives, descriptive statistics were used to analyze the frequency and percentage of the student's spiritual well-being, mindfulness, and emotional regulation. Kendall rank correlation coefficient was used to assess the correlation between spiritual well-being, mindfulness, and emotional regulation. The Chi-square test assessed the association between socio-demographic variables and spiritual well-being. The statistical significance level was taken as less than 0.05."

4. Results

4.1 Socio-demographic characteristics

Out of 500 participants, most undergraduate nursing

students, 228 (45.6%), were between 20-21 years of age. Majority of the participants were females 414 (82.8%). The majority, 332 (66.4%), belonged to the Christian religion. Around 175 (35%) participants were 3rd year BSc nursing students. A large proportion of the participants, 400 (80%), stay at the hostel. Further more large propotion of the participants (86.0%) were from nuclear families and 241 (48.2%) had only one sibling. Most respondents' parents weer graduates; fathers, 234 (46.8%), and mothers, 242 (48.4%). Regarding the occupational status of the respondent's parents, 152 fathers (30.4%) holds business, and mothers, 321 (64.2%) were homemakers. Around 170 (34.0%) participants were from the lower-middle-income status. A maximum number of participants, 159 (31.8%), have reported spending 15 minutes for daily spiritual practice."

4.2 Spiritual well-being level

The majority, 291 (58.2%), had good spiritual well-being, 205 (41.0%) students had a moderate level of spiritual well-being, and a least, 4 (0.8%) had low Spiritual well-being.

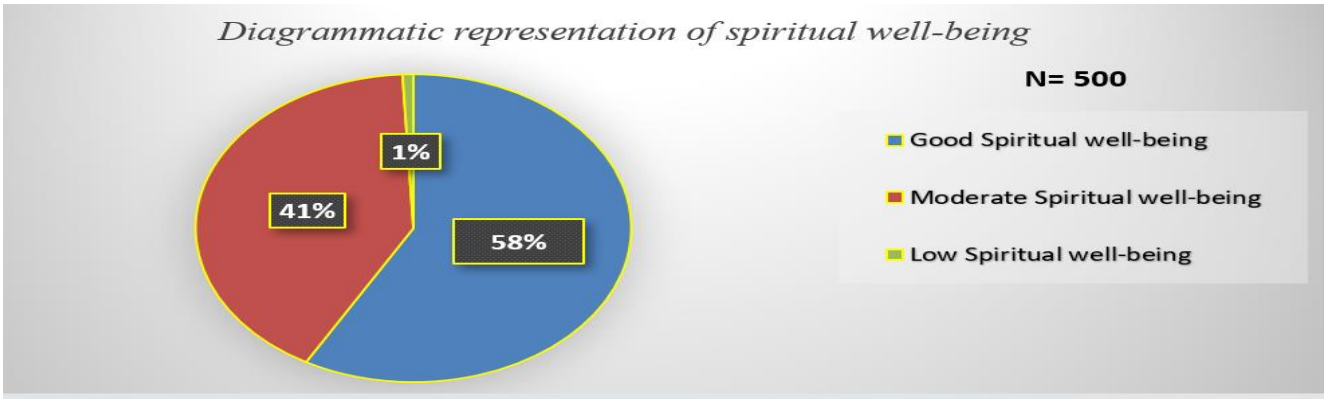

Fig. 1. The percentage distribution of spiritual well-being.

Table 1. Mean, SD, minimum and maximum scores of spiritual well-being. (N=500)						
Variables	Mean	SD	Possible min. score	Possible max. score	Min. obtained score	Max. obtained score
Spiritual well-being	145	14.7	36	180	89	180

The minimal score obtained was 89, and the top rating was 180. The mean score of spiritual well-being was 145 with a ±14.7 standard deviation.

4.3 Mindfulness attention awareness level

The absolute majority, 306 (47.8%), had mindfulness all the time, 151 (30.2%) of them mindful more often, 86 (17.2%) of them mindful sometimes and practiced alternative skills, 22 (4.4%) of them mindful sometimes but not practicing any skills, and 2 (0.4%) of the participants were aware sometimes but not very much.

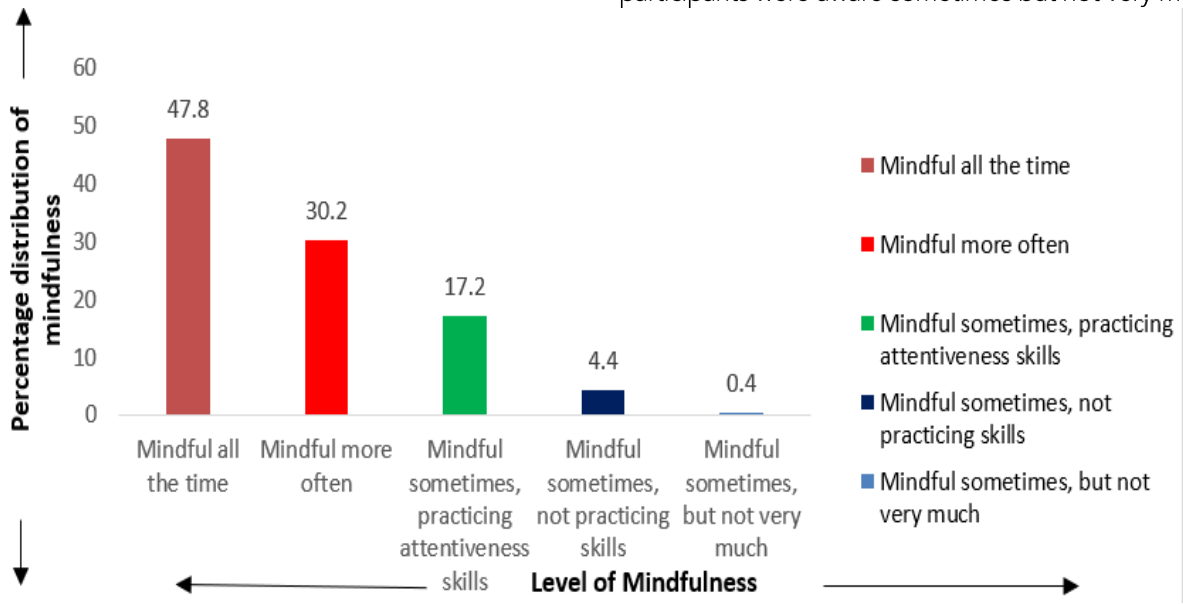

Fig. 2. The percentage distribution of mindfulness.

Table 2Mean, SD, minimum, and maximum scores of mindfulness. (N=500)						
Variables	Mean	SD	Possible min. score	possible max. score	Min. obtained score	Max. obtained score
Mindfulness	70	12.6	15	90	22	90

The minimum score obtained was 22, and the total score was 90. The mean score of mindfulness was 70 with a ±12.6 Standard deviation.

4.4 Emotional regulation level

The majority, 384 (76.8%), used emotional reappraisal and 229 (45.8%) used emotional

suppression in their daily situations to regulate their emotions. Since the emotional regulation scores did not follow a normal distribution as checked by the Shapiro-Wilk test, the median was used to measure central tendency. The median score for emotional suppression was three, and the interquartile range was one. The minimum and maximum scores for emotional reappraisal were six and 36, and emotional suppression was six and 28.

Table 3Median, IQR, minimum, and maximum scores of emotional regulation subscales. (N=500)						
Emotional regulation-sub scale	Median	IQR	Possible min. score	Possible max. score	Min. obtained score	Max. obtained score
Emotional Reappraisal	3	7	6	42	6	36
Emotional Suppression	3	1	4	28	6	28

4.5 Relationship between spiritual well-being, mindfulness, and emotional regulation

Kendall rank correlation coefficient was used to determine the relationship between mindfulness, spiritual well-being, and emotional regulation.

Table 4. Relationship between mindfulness, spiritual well-being, and emotional regulation. (N=500)								
Variables	Mindfulness		Emotional Reappraisal		Emotional Suppression		Spiritual well-being	
	r	p	r	P	r	p	r	p
Mindfulness	-	-	.641	.001	.289	.001	.399	.001
Emotional Reappraisal	.641	.001	-	-	.085	0.36	.204	.001
Emotional Suppression	.289	.001	0.85	0.36	-	-	.299	.001
Spiritual well-being	.399	.001	.204	.001	.299	.001	-	-
*P< 0.05								

There was a significant moderate positive correlation between mindfulness and emotional reappraisal, i.e., (r = .641, p=.001). There were low positive correlation between mindfulness and emotional suppression (r= .289, p= .001), spiritual well-being and emotional reappraisal (r = .204, p =.001), spiritual well-being and emotional suppression (r= .299, p=.001), and spiritual well-being and mindfulness (r= .399, p= .001) at P< 0.05 level of significance and it shows all three variables have significantly interrelated with each other. There was negligible relationship between emotional suppression and emotional reappraisal, i.e., (r= .085, p= 0.36) had not significant at P<0.05 level.

5.6 Association between spiritual well-being and selected demographic variable

Association was computed using the Chi-square correlation coefficient. There was a significant association between spiritual well-being and some of the socio-demographic variables, i.e., year of study ($\chi 2$= 20.750, p=.002), number of siblings ($\chi 2$= 26.721, p=.001), and time spent for daily spiritual practice ($\chi 2$=38.830, p=.00), at a 0.05 level of significance. It shows that these noted demographic variables influence the spiritual well-being of undergraduate nursing students based on this study.

5. Discussion

This cross-sectional study highlights a significant moderate positive correlation between spiritual well-being, mindfulness, and emotional regulation. Findings of this study highlight that spiritual well-being, mindfulness, and emotional regulation significantly impacted the nursing students' professional, academic, and personal well-being. In this study, out of 500 participants, the majority, 291 (58.2%), had good spiritual well-being, and 205 (41.0%) students had a moderate level of spiritual well-being. Results from our study have a variance from the findings of other studies, i.e., in a study from the United States, participants indicated that they were trying to be spiritual (N=50,75.8%); however, fewer students stated that they were highly spiritual (N=38,57.6%), and the participants' spirituality level is indicated by a mean score of 51.10 (SD= 13.7%) (9). Joseph et al conducted a study in Kerala, and the result revealed the mean score of spirituality was 84.40 (SD±8.45) and spiritual well-being was 65.81(SD±6.09). A statistically significant strong positive correlation was found between spirituality and spiritual well-being (r=0.806, p =0.0001) (10).

Mindfulness in the present study, the absolute majority, 306 (47.8%), had mindfulness all the time, 151 (30.2%) of them mindful more often, 86 (17.2%) of them mindful sometimes and practiced alternative skills, 22 (4.4%) of them aware sometimes but not practicing any skills. According to research from Turkey, students' median MAAS scores ranged from 50 to 64, placing them in the 25th to 75th percentile, and their mindfulness levels strongly impacted how satisfied they felt with their lives (t=6.756, p=0.000) (Aşık & Albayrak, 2021). A study from the United Kingdom reports, that an individual's level of mindfulness has a significantly positive (r = .641, p=.001) impact on emotional regulation (11).

Regarding emotional regulation, out of 500 students, 384 (76.8%) used emotional reappraisal, and 229 (45.8%) used emotional suppression in their daily situations in the present study. A cross-sectional study examined the connections between emotion regulation (reappraisal and suppression), socio-cognitive mindfulness, achievement feelings in nursing students, and the mediating effects of emotion regulation. Participants reported higher reappraisal (M= 3.49, SD= 0.65) than suppression (M= 2.73, SD= 0.83) in emotion regulation (11). A study from New York reports that there was a direct effect of mindfulness on emotion regulation (r=0.29, p=0.034) and working memory capacity (r=4.98, p=0.004), and MAAS scores were considerably associated with ERQ-Reappraisal scores (r= 0.19, p= 0.045) (13).

This study highlights a significant moderate positive correlation between mindfulness and emotional reappraisal, i.e., (r = .641, p=.001). There were low positive correlation between mindfulness and emotional suppression (r= .289, p= .001), spiritual well-being and emotional reappraisal (r = .204, p =.001), spiritual well-being and emotional suppression (r= .299, p=.001), and spiritual well-being and mindfulness (r= .399, p= .001) at P< 0.05 level of significance and it shows all three variables have significantly interrelated with each other. The findings agree with a study undertaken by Dubert et al in New York, and mindfulness has a direct impact on controlling emotions (r=0.29, p=0.034) (13). In 2017 a correlational study was conducted to assess the connection between spiritual well-being and mindfulness, self-compassion, and life satisfaction. The findings showed a strong association between nursing students' spiritual well-being ($\chi 2$=223.85, p=.001) and mindfulness (r=3.820, p=.000) (14).

6. Conclusion

The present study findings revealed a significant moderate positive correlation between mindfulness and emotional reappraisal. There were low positive correlation between mindfulness and emotional suppression, spiritual well-being and emotional reappraisal, spiritual well-being and emotional suppression, and spiritual well-being and mindfulness. An educational program on emotional regulation activities and their beneficial effects could help students gain more awareness, choose the correct path, and reduce unwanted outcomes.

Financial Disclosure

There are no financial conflicts of interest to disclosure.

7. Conflict of interest

All authors declare that they have no conflict of interest in this work.

8. Acknowledgment

The author thank all individuals who provided help with this work.

9. Highlights

Spiritual well-being and mindfulness can affect the nursing students' personal and professional lives, and that helps to regulate their emotions.
Being mindful to own experience increases the ability to manage stress and enhances decision-making.
Emotional regulation will have a beneficial effect on the student nurse's performance.

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