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Evaluating the influence of a psychiatry training program on nursing students' attitudes towards mentally ill

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Abstract:

BACKGROUND: Mental disorders are a global concern, affecting millions worldwide. Despite effective therapies, societal stigma toward mental illness persists, hindering access to healthcare and perpetuating negative stereotypes. These prejudiced attitudes are also present in nursing professionals and impact the quality of care provided by them. This study aimed to explore the impact of a month-long residential psychiatry training program on the attitudes of nursing undergraduate students toward mental illness.

MATERIALS AND METHODS: This was a longitudinal study with pre-post design conducted at a government mental health hospital and training institute in north India using convenient sampling. The Community Attitude Towards Mental Illness (CAMI) Scale, which has subscales of Authoritarianism, Benevolence, Social Restrictiveness, and Community Mental Health Ideology was used to measure the attitudes towards the mentally ill in nursing students before and after the training program. Descriptive statistics were used to present the data while paired t-tests and McNemar test were used for analysis.

RESULTS: A total of 970 students were included. A significant improvement in Social Restrictiveness, Community Mental Health Ideology, and the total CAMI score was noted post-training ($P < 0.001$ for each) while changes in Authoritarianism ($P = 0.87$) and Benevolence ($P = 0.1$) were nonsignificant but positive. Furthermore, increased willingness to work in psychiatry wards post-training was found, indicating a positive influence on career choices ($P < 0.001$).

CONCLUSIONS: The results emphasize the effectiveness of combining theoretical knowledge with real-life exposure in mental health nursing. Despite limitations, like a single-center study and no control group, the study's pre-post design and large sample size contribute valuable insights.

Keywords:

Attitude, attitude of health personnel, baccalaureate, community psychiatry, education, health education, mental disorders, mentally ill persons, nursing, psychiatric nursing, students

Introduction

Mental disorders are prevalent throughout the world. According to the World Health Organization, one in every eight, or 970 million people around the world have a mental disorder.[1] Similarly, one in every seven, or a total of 197.3 million individuals in India suffer from mental illness.[2] Mental illnesses are also the leading cause of disability-adjusted life years in the adult population.[2,3]

There is a broad spectrum of mental disorders, from minor disorders that slightly affect day-to-day functioning to severe disorders that necessitate hospitalization. But, unlike most physical illnesses, serious stigma and negative attitudes exist toward people with mental illnesses. Even though effective therapies are available, there are

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misperceptions that mental disorders are incurable and those affected are unpredictable, dangerous, violent, and incapable of making rational decisions. These negative perceptions result in a reluctance to seek psychiatric assistance by such patients. These prejudices also decrease access to housing, employment, and fruitful social relationships.[4,5] Despite sincere efforts only minimal reductions in the mental health-related stigma have occurred in the past decades.[6,7]

Stigma toward people with mental illness is also prevalent among health professionals, including mental health professionals, and this further limits access to health services and affects the quality of care provided.[8–10]

Mental health professionals should have positive and non-stigmatizing attitudes toward persons with mental illness. Nursing professionals being a pivotal part of the mental health care team are closely involved in the health care of patients, hence their attitudes towards persons with mental illness are important determinants of the health care provided. Often these attitudes develop in the initial phases of training and persist throughout life.[11] Negative attitudes or misperceptions towards persons with mental illness also make mental health nursing an unpopular choice among nursing professionals resulting in the loss of valuable human resources.[12]

An effective strategy proposed for reducing the stigma of mental illnesses is contact and education.[13,14] Though previous studies have shown that negative attitudes toward the mentally ill exist in medical and paramedical students very few have assessed the impact of a formal training program on these attitudes. Therefore, this study was undertaken to determine the impact of a monthlong residential training program in psychiatry for nursing undergraduate students being conducted at a premier government teaching institute dedicated to the mentally ill in north India. The authors hypothesized that this program will cause a positive change in the attitudes of nursing students towards the mentally ill as measured by the CAMI Scale and will also increase the number of nursing students willing to pursue mental health nursing. [Figure 1]

Materials and Methods

Study design and setting

This was a longitudinal study with pre-post design conducted at a government psychiatric hospital and training institute in Agra, India from January 2023 to May 2023. This institute regularly conducts various mental health-related training programs for medical as well as paramedical professionals. One of these is a residential mental health nursing training program of one-month duration, during which a total of 120 hours of practical and 40 hours of theory classes, are provided to students pursuing Bachelor of Science (B.Sc.) (Nursing) and General Nursing and Midwifery (GNM) courses. This mental health nursing program includes daily lectures in psychiatry along with hands-on training by direct contact and involvement in the management of the mentally ill. This is done by registered instructors as per the standards set by the Indian Nursing Council. Data collection was done before the initiation and after the completion of this training program.

Study participants and sampling

The nursing students attending the aforementioned program at the institution were included in the study after obtaining written informed consent. The sampling technique used was convenient sampling. Those who did not provide consent were excluded from the study. The students were informed about the purpose of data collection, confidentiality was ensured and students were assured that this is not an academic evaluation and will not affect their training in any way.

Data collection tool and technique

Sociodemographic data was collected on a predesigned proforma at baseline. This proforma contained a statement of written informed consent and anonymity, information about the study, and instructions on how to complete the survey.

The attitudes toward the mentally ill were assessed using the Community Attitude Towards Mental Illness (CAMI) Scale. CAMI is a questionnaire developed by Taylor and Dear to investigate attitudes toward the mentally ill. It is a validated 40-item self-report survey comprising four subscales viz. Authoritarianism, Benevolence, Social Restrictiveness, and Community Mental Health Ideology with ten items in each subscale. Five items in each subscale are positively worded and five are negatively worded. Each item enquires about the respondent's agreement with declarative statements on a five-point Likert scale: Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree. The responses are numerically coded according to the key provided by the scale developer. Scores range from 10 to 50 on each subscale. To calculate an overall score, the scores on the Benevolence and Community Mental Health Ideology subscales are subtracted from the scores on the Authoritarianism and Social Restrictiveness subscales, resulting in a possible overall CAMI score of – 80 to 80.[15,16] "Authoritarianism" implies that people with mental illness are inferior and require coercive handling by others. This measures the participants' way of looking at mental illnesses and the people suffering from them, their knowledge of how mental illnesses develop, and how the mentally ill should be handled. "Benevolence"

Figure 1: Conceptual model of research framework

assesses a kind and sympathetic attitude toward people with mental illness. "Social Restrictiveness" measures the endorsement of limits on behaviors and activities of people with mental illness such as marriage, having children, and other civil liberties. This scale assesses the dangers to society by the mentally ill and suggests that people with a mental disorder should be restricted both during and after hospitalization. Lastly, "Community Mental Health Ideology" reflects attitudes toward mental health services provided and located within one's community.[15] Higher scores in authoritarianism and social restrictiveness indicate greater stigma, while lower scores in benevolence and community mental health ideology indicate greater stigma. Higher overall CAMI scores are indicative of more stigmatizing attitudes. The CAMI scale has been used and validated across diverse populations including students and healthcare workers.[17–19]

After the collection and validation of data, statistical analysis was done. Descriptive statistics were applied. The categorical data were presented as frequencies and percentages. Mean and Standard deviation (SD) were calculated for quantitative data. Paired t-tests were used to compare the mean score of CAMI and its subscales while the McNemar test was used to compare paired nominal data for the choice to work in a psychiatry ward before and after the training program. A *P* value less than 0.05 was considered to be statistically significant.

Ethical considerations

Ethical approval was granted by the Institutional Ethics Committee (Study Identification number: SNMC/IEC/2022/66, Dated 19 December 2022). All the participants gave written informed consent, and the data collected was kept anonymous and confidential. In addition, the participants had the option of declining participation or withdrawing at any time.

Results

A total of 989 nursing students were screened for inclusion in the study. 970 students provided consent for the study. Post-training data couldn't be gathered from 40 students as they were not available for assessment after completion of the program. Data was incomplete or invalid for 21 students. Hence, data from 909 nursing students was found suitable for the final statistical analysis.

The average age of students was 21 years with the majority being females (85%, *n* = 771). Nearly two-thirds of students were in the third year of the course (61%, *n* = 555), rest were in the second year (39%, *n* = 354). Most were unmarried (96%, *n* = 872), and pursuing B.Sc Nursing (63%, *n* = 573). A large number of participants belonged to either Uttar Pradesh (45%, *n* = 408) or Uttarakhand (32%, *n* = 294). More than half of the participants were from rural or suburban localities (62%, *n* = 563). Mostly the students belonged to middle socioeconomic (61%, *n* = 555) or lower socioeconomic classes (37%, *n* = 338) [Table 1].

Though more than three-fourths of students had received classroom-based lectures on mental health nursing in their colleges (76%, *n* = 691) only a quarter had actually visited psychiatry wards (26%, *n* = 677). More than half of the students had some form of contact with a person with mental illness (57.3%, *n* = 521) but only a few (7%, *n* = 63) had a close contact affected with mental illness. Besides, only a minority (3%, *n* = 30) reported having experienced psychiatric symptoms themselves [Table 2].

Before the initiation of the training program, the Mean scores and Standard Deviation (SD) for different subscales of CAMI were (Mean ± SD): Authoritarianism – 30.72 ± 3.00, Benevolence – 36.52 ± 3.86, Social Restrictiveness – 25.71 ± 4.56, Community Mental Health Ideology – 34.25 ± 3.90. The total calculated CAMI score pre-training was (–) 14.35 ± 11.15. After completion of the training program, the mean scores on different domains of CAMI were the following (Mean ± SD): Authoritarianism – 30.70 ± 2.89, Benevolence – 36.74 ± 3.98, Social Restrictiveness – 23.96 ± 4.85, Community Mental Health Ideology – 35.68 ± 4.56. The total calculated CAMI score was (–) 17.77 ± 12.22 [Figure 2] A statistically significant difference was noted between the scores of Social Restrictiveness and Community Mental Health Ideology as well as the calculated total score ($P < 0.001$ for each) before and after completion of the program.

Table 1: Sociodemographic Characteristics of the Study Population

Variable		(*n*=909)
Age in years (Range: 18-33)	18–20	165 (18.15%)
	20–25	703 (77.34%)
	≥25	41 (4.51%)
Gender	Female	771 (84.82%)
	Male	138 (15.18%)
Marital Status	Married	37 (4.07%)
	Unmarried	872 (95.93%)
Name of nursing course	BSc Nursing	573 (63.04%)
	GNM	336 (36.96%)
Year of nursing course	2nd year	354 (38.94%)
	3rd year	555 (61.06%)
Place of birth/ early education	Uttar Pradesh	408 (44.88%)
	Uttarakhand	294 (32.34%)
	Others	207 (22.77%)
Locality	Rural	467 (51.38%)
	Suburban	96 (10.56%)
	Urban	346 (38.06%)
Socioeconomic status	Lower	19 (2.09%)
	Upper Lower	319 (35.09%)
	Lower Middle	273 (30.03%)
	Upper Middle	282 (31.02%)
	Upper	16 (1.76%)

Table 2: Variables Related to Training and Contact with Persons with Mental Illness

Variable		(*n*=909)
Previously attended classroom-based mental health nursing theory lectures	Yes	691 (76.02%)
	No	218 (23.98%)
Previously attended or posted in psychiatry wards	Yes	232 (25.52%)
	No	677 (74.48%)
Previously had contact with a Person With Mental Illness	Yes	521 (57.32%)
	No	388 (42.68%)
Previously had close contact with a Person With Mental Illness (family, close friends)	Yes	63 (6.93%)
	No	846 (93.07%)
Have experienced psychiatric symptoms themselves	Yes	30 (3.30%)

This implies a reduction of stigma in the domains of Social Restrictiveness and Community Mental Health Ideology, along with overall positive change in attitudes as measured by the total CAMI score. There was also a modest reduction in authoritarianism ($P = 0.87$) and an increase in benevolence ($P = 0.1$), but these changes were not found to be statistically significant [Table 3].

A single question with two options – "Yes" or "No" was used to determine whether the students were willing to work in a psychiatry ward pre-training and post-training. It was found that pre-training, only 89 students were willing to work in the psychiatry ward, which increased to 584 post-training, and this change was found to be statistically significant using McNemar's test ($p < 0.001$) [Table 4].

Discussion

Negative and stigmatizing attitudes towards mental illness are common among nursing professionals thus an effective solution to reduce them is needed. Through this study, we intended to gauge the effectiveness of a mental health nursing training program being conducted in a mental health institute in changing such attitudes. The novelty of this study includes using a pre-post design, the largest population sample to date with exposure to real-life clinical scenarios, which we believe helps resolve the limitations of previous studies which are mostly cross-sectional studies with small sample sizes.

India's most recent National Mental Health Survey reported a ten percent prevalence rate for common mental disorders and a treatment gap (defined as the percentage of individuals with mental disorders who did not receive appropriate care) of about 85%. The lack of awareness and stigma of mental illness were found to be the major factors for this high treatment gap.[20] Furthermore, the Mental Health Care Policy, National Mental Health Program and the Mental Health Care Act, 2017 of India advocate for the equality and rights of individuals with mental illness.[21-23] This study apart from providing a framework to reduce the stigma and

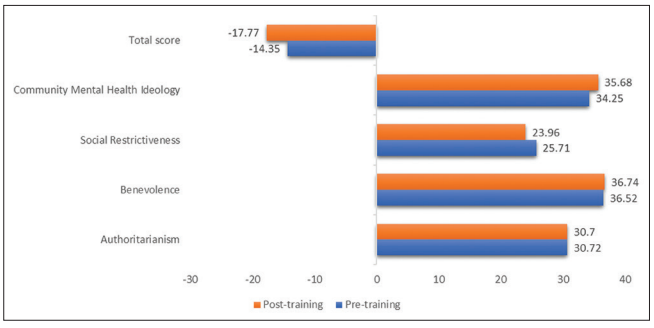

Figure 2: Community Attitude Towards Mental Illness (CAMI) scores pre-training and post-training

Table 3: Community Attitude Towards Mental Illness (CAMI) and its Subscale Scores Pre-training and Post-training

Variable	Pre-training (Mean±SD)	Post-training (Mean±SD)	*t*-score	*P*
Authoritarianism	30.72±3.00	30.70±2.89	0.165	0.869
Benevolence	36.52±3.86	36.74±3.98	-1.627	0.104
Social Restrictiveness	25.71±4.56	23.96±4.85	10.670	<0.001
Community Mental Health Ideology	34.25±3.90	35.68±4.56	-9.295	<0.001
Total score	-14.35±11.15	-17.77±12.22	9.135	<0.001

Table 4: Comparison of Students Willing to Work in Psychiatry Ward Pre-Training versus Post-Training

Willing to work in the psychiatry ward (*n*=909)		Post-training		χ^2	*P*
		No	Yes		
Pre-training	No	85	151	16	<0.001
	Yes	89	584		

improve the conditions of the mentally ill also helps in identifying which attitudes are more amenable to change and which ones require a greater effort.

The sociodemographic characteristics of the sample match the profile according to the age of graduation in the country. In line with the societal perceptions that females are more suited for the nursing profession, a greater number of females were observed in the sample. The comparatively lesser exposure to psychiatry wards may reflect the lack of fully functional psychiatric facilities at their institutes. Although the majority reported having contact with a mentally ill person, few reported that either they or people close to them were mentally ill. This probably reflects the stigma and related bias in answering such questions. It may also simply reflect the lack of knowledge about the clinical features of various psychiatric illnesses, especially the less severe and more common ones.

We found that the baseline attitudes were better compared to another study on nursing students at baseline except for authoritarianism.[24] In contrast, poorer attitudes in all domains of CAMI were noted when compared to a different study.[25] This stigma stems from the broader societal prejudices, that nursing students inevitably encounter as part of their personal, professional and educational experiences.

As hypothesized, after completion of the training program there were noticeable improvements in all domains of the CAMI scale as well as the total CAMI score ($P < 0.001$ for each) though the changes didn't reach statistical significance for domains of authoritarianism ($P = 0.87$) and benevolence ($P = 0.1$). Similar to our study, another study found improvements in all domains of the CAMI scale after a similar course, but those improvements didn't reach statistical significance.[26,27] On the other hand, a recent study noted statistically significant improvements in all four subdomains of CAMI after theoretical training and clinical placement in psychiatry.[28] In another study, statistically significant improvements were noted in all the domains of CAMI except community mental health ideology.[29] One study found no statistically significant change in individual subscales of CAMI but did find statistically significant changes in total scores.[30] Therefore, we conclude that a program that provides both theoretical knowledge and actual exposure to the mentally ill is effective in improving attitudes toward the mentally ill. A recent integrative review also highlights that the most effective anti-stigma interventions involve direct social contact between healthcare providers and individuals with mental illness.[31] Research on anti-stigma initiatives targeting healthcare workers has identified several key factors that contribute to successful outcomes. These include: (i) engaging with speakers who have personal experiences with mental health issues; (ii) utilizing diverse formats, such as videos featuring different speakers; (iii) focusing on behavioral change by teaching practical skills to guide healthcare workers in their interactions with individuals suffering from psychiatric disorders; (iv) addressing and correcting common misconceptions; and (v) emphasizing the concept of recovery by showcasing the achievements and full lives of individuals with lived experience of mental illness. Additionally, interventions are more effective when besides enhancing understanding they also reduce anxiety, fear and apprehension.[32] It is likely that as students gain knowledge about mental illness and establish caring relationships with mentally ill patients the unfounded stigmatizing attitudes disappear. Consequently, they may view patients as less dangerous, needing fewer restrictions like patients with any other illness. The relatively modest and non-statistically significant improvement in authoritarianism and benevolence can be explained by the fact that since this program was being conducted at a mental health institute where many inmates were severely and chronically ill or were destitute with no one from their families to care for them, it led to a perception that constantly supervising, restricting and guiding such patients is better for their own benefit. This reflects that though nursing students were more permissive and in favor of delivering mental health services after the training program, they felt that such patients needed constant supervision and sympathy. It can also be presumed

that such attitudes which are usually formed over years and reinforced by common public beliefs require greater effort and time to change. Studies have shown that exposure to patients with severe chronic mental illnesses may even worsen attitudes toward the mentally ill.[12] The circumstances of contact with mental illness also decide whether it leads to positive transformations or negative transformations. Positive transformations include gaining an understanding of the diverse nature and varying impact of mental illness, recognizing the importance of treatment, and appreciating that recovery is possible, with the development of empathy towards mentally ill people. On the other hand, negative transformations arise from uncertainty about the legitimacy of mental illnesses, seeing the poor outcomes in difficult-to-treat patients and witnessing the harmful impact it has on families or caregivers of people with mental illness. Personal experience with mental illness might also reduce stigma, foster empathy and lead to a better understanding of mental illness.[33]

In our study, there was a significant increase in the proportion of students willing to work in the psychiatry ward after the training program. It is obvious that students' career choices and perceptions of psychiatric nursing are intricately related and can't be isolated. Likewise, increased willingness to work in psychiatry or increased popularity of psychiatric nursing post such programs have been observed in other studies as well.[34,35] A review found that exposure to mental health settings improves attitudes toward people with mental health issues and confidence to work in such settings.[36] It is likely that as health professionals develop self-confidence and better communication skills, they will have positive interactions with individuals with mental health issues, further improving their views. The importance of clinical abilities and self-assurance in fostering positive attitudes in health professionals is backed by research.[37] Since mental health nursing is one of the least preferred career options for nursing students such changes can help direct valuable human resources to this field.[38]

Finally, some unexplored factors like factors related to upbringing, personal interest in psychiatry, knowledge about mental health disorders and the importance of mental health, opinions on whether the treatments work, views regarding the relevance and scope of the profession, and the approach of educators may also modulate the overall outcome of such programs.

The authors have chosen to publish their findings, despite certain results being statistically non-significant, to avoid the issue of publication bias. Also, the methodological quality of the research is adequate to ensure the reliability of the results presented.

The strength of this study is its pre-post design and large representative sample of nursing students. This study provides insights into attitudes and perceptions of nursing undergraduate students toward the mentally ill and examines how they change after targeted teaching and exposure. Additionally, it demonstrates the effectiveness of the aforementioned month-long mental health nursing training program in improving the attitudes toward the mentally ill. It is expected that such training programs can encourage nursing students to choose careers in mental health or psychiatry. Further, this study also highlights the need for such structured, standardized and outcome-based training programs.

Limitations and recommendation

The limitations of this study include the lack of a control group and collection of data from a single center which may have introduced a selection bias. Also, the nature and extent of the participants' previous training or exposure to mental health nursing were not explored. Although students had been explicitly informed that the study was not an assessment exercise and the people involved in the training were not involved in data collection response bias cannot be excluded. Participants' responses might also have been subject to bias of social desirability. Moreover, while seeking responses no distinction was made between severe, chronic, debilitating psychiatric disorders versus less severe, less disabling, temporary psychiatric disorders. The competence or knowledge in mental health nursing was also not studied. Finally, while improvements in attitude have been noted, it is unclear whether this leads to changes in the real-life interaction with the mentally ill or how long these improvements persist.

Future research studies should address these limitations along with the study of unexplored variables. The findings of this study may be useful in developing and conducting new studies to identify best practices to combat stigma and its consequences in the field of mental health. Moreover, studies can be planned to see the effects of such practices on patient care and understand their real-world outcomes. Long-term follow-up with repeated assessments can help assess how long the changes in attitudes last and identify domains needing continuous and greater attention. Hence, this research offers valuable insights and lays the groundwork for future studies on stigma reduction strategies.

Conclusion

The authors conclude that a training program that combines theoretical lectures with actual contact with the mentally ill can improve the negative attitudes of nursing students. This may improve healthcare outcomes and decrease discrimination against mentally ill persons.

This positive outlook toward the mentally ill can also increase human resources in the field of mental health. These outcomes align with the goals of the National Mental Health Policy and the provisions of the Mental Health Care Act of India.

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Conflicts of interest

There are no conflicts of interest.

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