Improving psychiatric competence and career interest: Outcomes of a clerkship program among nursing students

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Abstract

Background: Mental health is essential for overall well-being and should be prioritized alongside physical health. Global mental health issues are increasingly prevalent and impactful. Psychiatry faces challenges as a career choice among nursing students, contributing to a shortage of psychiatrists. Clerkships in psychiatry play a critical role in shaping students' perceptions of the field, which can have either positive or negative effects on their interest and competencies.

Objective: This study was conducted to assess the effectiveness of a psychiatry clerkship program in improving nursing students' knowledge, attitudes, and skills related to psychiatric care and to examine the influence of the clerkship on their interest in psychiatry as a career.

Methods: A one-group pretest-posttest design with purposive sampling was employed among 102 undergraduate nursing students. A self-structured questionnaire was used to assess knowledge, attitudes, and skills related to psychiatric care. A six-week psychiatric clerkship intervention, developed and validated by psychiatric and psychology experts, was conducted. Pre- and post-assessments were performed to evaluate the effectiveness of the clerkship.

Results: The psychiatric clerkship program significantly improved students' knowledge, attitudes, and skills. Knowledge scores increased from a low baseline to significantly higher post-test levels. Attitude and skill scores also saw substantial improvements, with all changes showing high statistical significance ($P < 0.01$). Principal component analysis suggested strong correlations between knowledge and skills. The intervention reduced stigma towards psychiatry and positively impacted perceptions of mental illness and psychiatry as a career.

Conclusions: The psychiatric clerkship program effectively enhanced nursing students' knowledge, attitudes, and skills in psychiatric care, reduced stigma towards mental illness, and modestly increased interest in psychiatry as a career. Integrating stigma-reduction strategies into pre-clinical education could further improve student perceptions and competencies, supporting better psychiatric care and potentially addressing the shortage of mental health professionals.

Keywords: Psychiatric clerkship, Psychiatric clinical rotation, Mental health, Mental illness, Stigma and career

Introduction

The global burden of mental health disorders is increasing at an alarming rate, affecting millions of individuals across all age groups and socio-economic backgrounds [1-3]. According to the World Health Organization (WHO), mental health disorders account for a significant portion of the global disease burden, with conditions such as depression, anxiety, schizophrenia, and bipolar disorder contributing to disability, reduced quality of life, and increased mortality [4,3]. Despite this, mental health services remain under-resourced and under-utilized, particularly in developing countries like India, where stigma, lack of awareness, and inadequate infrastructure hinder access to mental health care [5-7]. This imbalance between the high prevalence of mental illness and limited mental health services places immense pressure on healthcare professionals, particularly nurses, who are often the first point of contact for patients requiring psychiatric care [8,9]. Thus, there is an urgent need to equip nursing students with the knowledge, skills, and attitudes required to provide competent and compassionate psychiatric care. Psychiatric nursing requires a strong understanding of mental health disorders and the ability to apply theory in clinical settings [10-12]. However, it is often marginalized in nursing curricula, leaving students with minimal exposure to mental health care [13,8]. As a result, many enter clinical practice feeling unprepared, leading to suboptimal care and reinforcing stigma [14-16]. Given nurses' critical role in psychiatric care, improving training is essential [17, 10, and 18]. Psychiatric clerkships are vital in nursing education, providing hands-on experience to apply theoretical

knowledge and develop skills in mental health care [8,19,20]. Beyond clinical competence, they help foster empathy and reduce stigma toward mental illness [21,22]. Despite these benefits, further research is needed to assess their effectiveness in enhancing nursing students' mental health competencies [23,8].

In India, where the mental health workforce is already stretched thin, the lack of adequate psychiatric training for nursing students exacerbates the challenges of providing effective mental health care [5,9]. Despite the growing recognition of the need for mental health education, psychiatric nursing remains underrepresented in the curricula of many nursing programs [24,69]. This has resulted in nursing students graduating with insufficient knowledge of psychiatric disorders, limited clinical skills, and negative attitudes towards mental illness. As a result, newly qualified nurses may feel ill-equipped to care for psychiatric patients, leading to inadequate treatment, perpetuation of stigma, and reluctance to work in mental health settings [15,8, 25,70]. This study hypothesizes that participation in a psychiatric clerkship will significantly enhance nursing students' knowledge, attitudes, and skills in psychiatric nursing. Expected improvements in psychiatric knowledge, attitudes toward mental illness, and clinical skills will be assessed through pre- and post-test evaluations. This study evaluates the impact of a psychiatric clerkship on nursing students by assessing baseline knowledge, attitudes, and skills. It examines improvements in psychiatric knowledge, mental health laws, and patient-centered care, along with changes in attitudes and practical skills like communication and clinical decision-making. Additionally, it explores factors influencing the program's success and challenges in enhancing competencies. This study assesses changes in nursing students' knowledge, attitudes, and skills toward mental illness following a psychiatric clerkship. Findings will inform nursing education and mental health care in India, offering insights for curriculum improvement and addressing the need for skilled psychiatric professionals.

Materials and Methods

Ethical considerations

Ethical approval for the study was granted by the Sharda University Ethics Committee (approval no: SU/SMS&R/76-A/2024/50). All participants provided written informed consent after confirming their full understanding of the study's objectives.

Study area and periods

The study was carried out at the Sharda School of Nursing Science & Research, Uttar Pradesh, India, between March 2024 and May 2024 (Figure 1).
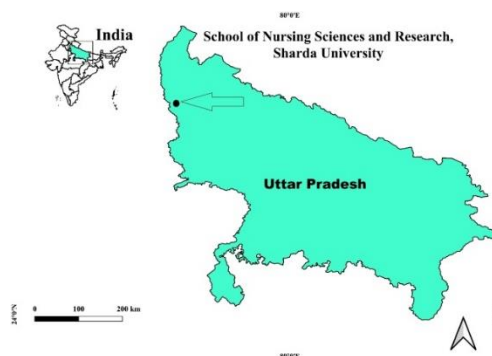

Fig. 1. The study was conducted at sharda school of nursing science and research, India.

Research design

This study employed a pre-experimental design with a one-group pre-test and post-test approach to assess the effectiveness of psychiatry clerkship on the knowledge, attitude, and skills of undergraduate nursing students. The design facilitated a comparison of the students' competencies before and after the intervention. The study was chosen for its convenience, feasibility, subject availability, cooperative management, cost-effectiveness, and the researcher's interest. Formal permissions were obtained from the ethical committee, the dean of the faculty, nursing superintendent, and chief nursing officer.

2.3 Sampling technique

A non-probability convenience sampling technique was employed, targeting third- and fourth-year nursing students, as well as post-basic B.Sc. nursing students, at Sharda School of Nursing Science & Research, Gautam Buddha Nagar, Uttar Pradesh. The sample included students who understood both Hindi and English, were willing to participate, and were available during data collection. The inclusion criteria ensured that participants were enrolled in the

specified academic years, capable of understanding the study languages, and present during the study period.

2.4 Data collection procedure

The data collection procedure for this study involved a pre-test, an intervention, and a post-test. Initially, informed consent was obtained, and a structured questionnaire was administered to assess baseline knowledge, attitudes, and skills related to psychiatric nursing. The intervention consisted of a six-week psychiatry clerkship with sessions, including lectures, clinical rotations, workshops, and reflection sessions. Immediately after the clerkship, the same questionnaire was administered as a post-test to measure changes. Responses from both tests were scored quantitatively, and statistical methods were used to compare pre- and post-test scores. Participants also provided feedback on their experiences, which was qualitatively analyzed to supplement the quantitative findings.

2.5 Description of psychiatric clerkship intervention

The psychiatric clerkship program for undergraduate students includes several critical components to ensure comprehensive education and practical experience in mental health care. It starts by introducing the importance of mental health nursing within the nursing profession, emphasizing the role and impact of mental health nurses. It then covers the legal framework of the Mental Healthcare Act, focusing on patient rights and nurses' legal responsibilities. The program delves into diagnostic procedures for various disorders, including delirium, dementia, amnestic and other cognitive disorders, substance-use vs. substance-induced disorders, bipolar disorder, schizophrenia, and personality disorders, teaching students to identify symptoms, apply diagnostic criteria, and differentiate between conditions. Practical demonstrations of these diagnostic procedures are conducted through supervised hands-on training, simulations, and patient interactions, ensuring students gain the necessary skills and confidence for effective psychiatric evaluations and patient care. This comprehensive approach equips students with foundational knowledge, practical skills, and an understanding of ethical and cultural considerations,

preparing them for future practice in mental health care.

This intervention protocol was evaluated and validated by subject experts, a psychiatrist, three psychologists, one surgery consultant and three nursing faculty along with a supervisor. Intervention protocol was implemented by the investigator, who was trained to conduct a Psychiatry Clerkship and conducted the research under the guidance and monitoring of the supervisor. Audio visual aids were prepared which included, black board, chart, flash cards, flipchart, hand-outs and LCD (Figure 2).
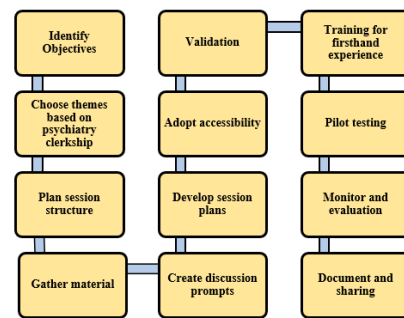

Fig. 2. Development of psychiatric clerkship program

2.6 Data collection measures

Individual assessments for nursing students were conducted using a socio-demographic questionnaire and sections on knowledge, attitude, and skills. Frist section covered knowledge of psychiatric disorders, relevant acts, and patient-centered care. Second section addressed attitudes towards the psychiatric clerkship, focusing on the merits of psychiatry as a scientific field and the effectiveness of its treatments. Third section evaluated various skills using a scale, assessing clinical knowledge integration, patient communication, history-taking efficiency, physical examination accuracy, diagnostic study selection and interpretation, clinical record quality, differential diagnosis generation, and care plan development, capturing overall performance during the clerkship.

2.7 Statistical analysis

Statistical analyses summarized continuous variables as means with standard deviations and categorical variables as frequencies and percentages. Paired *t*-tests assessed the effectiveness of the

psychiatric clerkship intervention among nursing students. The Pearson correlation coefficient evaluated relationships between knowledge, attitudes, and skills. Statistical significance was set at $P<0.05$, and all analyses were performed using IBM SPSS statistics version 25 and XLSTAT version 19 and the map was prepared using QGIS [26-28].

Results

Demographic variables

The majority of participants (58.8%) were aged 21-23, with 26.5% aged 18-20 and 14.7% over 23. Gender distribution showed a female majority (74.5%), reflecting trends in nursing. Most participants (94.1%) were third-year BSc Nursing students, while 5.9% were in their fourth year. Regarding income, 57.8% earned USD 250-360, 28.4% earned USD 481-600, while smaller groups earned USD 361-480 (3.9%) or over USD 600 (9.8%). Religiously, 86.3% identified as Hindu, 10.8% as Christian, and 2.9% as Muslim. Family structure was predominantly nuclear (92.2%), indicating a shift toward smaller, independent households (Table 1).

Table 1. Frequency and percentage distribution of study participants (N=102)

Demographic characteristics		Frequency	Percent
Age	18-20	27	26.5%
	21-23	60	58.8%
	23 and above	15	14.7%
	Total	102	100%
Gender	Male	26	25.5%
	Female	76	74.5%
	Total	102	100%
Education	BSc nursing 3rd year	96	94.1%
	BSc nursing 4th year	6	5.9%
	Total	102	100%
Monthly income	USD 250-360	59	57.8%
	USD 361-480	4	3.9%
	USD 481-600	29	28.4%
	More than 600 USD	10	9.8%
	Total	102	100%
Religion	Christian	11	10.8%
	Hindu	88	86.3%
	Muslim	3	2.9%
	Total	102	100%
Type of family	Joint family	8	7.8%
	Nuclear	94	92.2%
	Total	102	100%

The analysis employed Pearson's correlation coefficient to examine the relationships between these variables. The findings indicated no significant correlations between any of the outcome variables, suggesting that pre-test Knowledge, attitude, and skills were largely independent of one another. The correlations between knowledge, attitude, and skills were weak and statistically insignificant. Knowledge and attitude showed a near-zero negative correlation (-0.048, P=0.634), indicating no meaningful relationship. Similarly, knowledge and skills had a weak negative correlation (-0.148, P=0.139),

suggesting knowledge did not predict skill levels. Attitude and skills were also uncorrelated (0.017, P=0.863). All p-values exceeded 0.05, confirming that these variables function independently in this sample (Table 2).

Table 2. Correlation between knowledge, attitude and skills towards psychiatry clerkship program among undergraduate nursing students (N=102)

Outcome variables		1	2	3
Knowledge	Pearson correlation	1	-0.048	-0.148
	P-value		0.634	0.139
Attitude	Pearson correlation		1	0.017
	P-value			0.863
Skills	Pearson correlation			1
	P-value			

Effectiveness of psychiatric clerkship among undergraduate nursing students

The psychiatric clerkship program for undergraduate nursing students has proven to be highly effective, as evidenced by significant improvements in their knowledge, attitudes, and skills related to psychiatric care. The program resulted in substantial increases in mean scores: knowledge (from 4.7 to 9.6), attitudes (from 18 to 32.4), and skills (from 14.9 to 26.2), all with highly significant p-values ($P<0.01$). These results indicate that the clerkship not only enhances students' theoretical understanding and practical abilities but also fosters a more positive attitude towards psychiatric patients. This comprehensive improvement prepares students to provide better, more empathetic care in mental health settings, ultimately benefiting patients and the healthcare system.

The significant improvements in knowledge, attitude, and skills underscore the effectiveness of the psychiatric clerkship program, highlighting its crucial role in nursing education. Enhanced competence, evidenced by higher scores, ensures students are better equipped for psychiatric cases, leading to improved patient care through a strong theoretical and practical foundation. A more positive attitude towards psychiatric patients fosters empathetic and effective care, addressing stigma and misunderstanding in mental health settings. This comprehensive improvement prepares students for real-world challenges, enhancing their professional development and readiness for the workforce. Consequently, the overall quality of psychiatric care improves, benefiting patients and the healthcare system through better outcomes and more efficient delivery.

Table 3. Knowledge, attitude and skills towards psychiatric clerkship program.

Variable	Values	Paired *t*-test
Knowledge score		
Pre test	4.70±1.70	-28.02 ($P< 0.01$)
Post test	9.60±2.60	
Attitude score		
Pre test	18.00±6.20	-19.83 ($P< 0.01$)
Post test	32.40±10.90	
Skill score		
Pre test	14.90±4.30	-20.95 ($P< 0.01$)
Post test	26.20±7.00	

Values= mean± standard deviation

Factors influence the psychiatric clerkship among undergraduate nursing students

The principal component analysis (PCA) of factors

influence the psychiatric clerkship among undergraduate nursing students revealed that the first PC contributes 99.756% of the variance, while the second (0.193%) PCs contribute most of the total cumulative variance. The two PCs contribute 99.949% of the total variation in the dataset and the eigenvalue refers to PC1 (2.993) and PC2 (0.006) (Table 4). The factor influences the psychiatric clerkship among undergraduate nursing students PCA suggested that all of the component PCs are positively correlated with the PC1. While the knowledge PCA suggested that all of the component PCs are positively correlated with the PC1. Knowledge (factor loading =0.999), attitude (factor loading = 0.998), and skills (factor loading = 0.999) were strongly correlated with the first PC and correlated with each other. While for the PC2 knowledge (factor loading = -0.050), and skill (factor loading = -0.007) were slightly negatively correlated with the PC2.

Table 4. Loading of variables of the factor influences the psychiatric clerkship among undergraduate nursing students

	PC1	PC2
Knowledge	0.999	-0.050
Attitude	0.998	0.057
Skills	0.999	-0.007
Eigenvalue	2.993	0.006
Variability (%)	99.756	0.193
Cumulative %	99.756	99.949

In the bi-plot and loadings plot, it was observed the knowledge (factor loading =0.999, -0.050), and skill (factor loading =0.999, -0.007) were positively correlated with each other and formed a cluster while the angular distance between skill (factor loading =0.999, -0.007), and attitude (factor loading = 0.998, 0.057) were found to be lower than that of the other cluster (Figure 3).
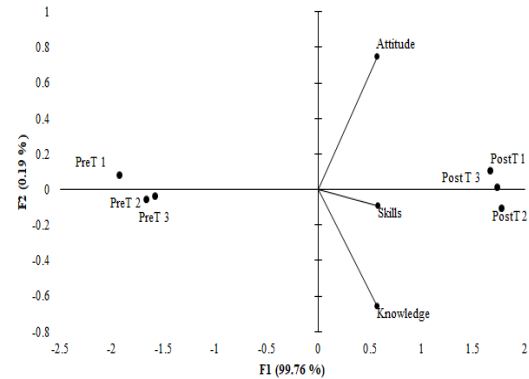

Fig. 3. PCA of the factor influences the psychiatric clerkship among undergraduate nursing students

4. Discussion

This study aimed to evaluate the impact of a structured 6-week psychiatry clerkship on undergraduate nursing students' knowledge, attitudes, and skills in the field of psychiatric nursing. At the onset of the study, baseline measures revealed that students had limited knowledge, generally negative attitudes, and underdeveloped practical skills related to psychiatry. These initial findings reflected not only a general lack of exposure to psychiatric nursing within their curriculum but also a common stigma and disinterest surrounding mental health care among nursing students [29,8,30,31]. Despite the importance of mental health in overall patient care, many students entered the clerkship with misconceptions or minimal understanding of psychiatric conditions and treatment modalities.

Psychiatric clerkships provide vital training for nursing students in mental health care, emphasizing diagnostic skills, therapeutic interventions, and psychiatric emergency management. Through supervised clinical exposure, students develop competencies in assessing mental disorders, applying treatments, and addressing ethical and cultural considerations. These programs foster interdisciplinary collaboration, communication, and psychosocial understanding, preparing students for compassionate psychiatric care [23, 32,8]. The study's demographic profile highlights a predominantly young adult sample, mostly in their early twenties, reflecting a common transition from education to professional practice. The lower representation of older students may indicate a trend of immediate post-secondary enrolment or

alternative career pathways [33-35].

Pearson's correlation analysis showed no significant relationships between pre-test knowledge, attitudes, and skills in psychiatric nursing, indicating their independence at baseline [36,8,31]. The weak negative correlation between knowledge and attitude challenges the assumption that greater knowledge improves attitudes, particularly in psychiatry, where stigma persists [37, 38,30]. Similarly, knowledge did not significantly predict skills in communication or clinical decision-making [39,40]. The lack of correlation between attitude and skills suggests that skill development in psychiatric nursing requires structured training rather than attitude shifts alone [15,19].

The findings from the psychiatric clerkship program demonstrate its substantial effectiveness in enhancing the knowledge, attitudes, and skills of undergraduate nursing students in the domain of psychiatric care. The significant increases in scores across these three critical areas suggest that the clerkship provides a robust framework for both theoretical and practical learning. These improvements indicate that the program not only equips students with a deeper understanding of psychiatric concepts but also plays a pivotal role in shaping their attitudes and competencies, which are essential for providing high-quality care to psychiatric patients [41,42,35, 43].

The psychiatric clerkship enhanced students' knowledge, attitudes, and skills, bridging theory and practice. Improved understanding of psychiatric disorders, mental health laws, and patient-centered care highlights its role in addressing stigma [44,8,19]. Positive attitude shifts, driven by patient interactions and reflective learning, foster empathy crucial for effective care and better outcomes [45,22,46]. Gains in communication, history-taking, and decision-making reinforce the value of hands-on learning [47,48,49]. This integrated approach equips students for competent psychiatric nursing [44,8].

The 6-week psychiatric clerkship significantly enhanced students' knowledge of psychiatric nursing, bridging gaps in their understanding of mental health conditions, treatment protocols, and patient management. Before the clerkship, many had only a basic grasp of these concepts, but structured clinical exposure deepened their comprehension [50,8,51]. Studies confirm that clinical placements improve nursing students' mental health knowledge by integrating theory with hands-on experience, fostering deeper insights into psychiatric disorders and patient-centered care [52-55]. Similarly, psychiatric rotations enhance theoretical knowledge by allowing students to apply learning in real-world settings, strengthening their understanding of treatment methods and patient management [56-59].

Before the clerkship Intervention, most students held negative attitudes toward psychiatry, but their perceptions improved significantly post-intervention, consistent with prior research. However, some studies report persistent or worsening negative attitudes, likely due to variations in educational approaches and learning environments. This underscores the need for well-structured psychiatric clerkships that optimize key learning factors [60-62]. The clerkship also enhanced students' psychiatric skills, particularly in patient history-taking and mental status examinations, essential for effective psychiatric nursing [17].

The PCA analysis suggested that, knowledge and skills were positively correlated with each other and formed a distinct cluster in the analysis, implying a strong connection between these two variables in shaping student outcomes. The angular distance between skills and attitude was relatively small, further highlighting the close relationship between these factors. This clustering of knowledge, skills, and attitudes suggests that improvements in one area are likely to be accompanied by gains in the others, reinforcing the idea that the psychiatric clerkship has a holistic impact on student development [63,64].

The psychiatric clerkship significantly enhanced students' knowledge, attitudes, and skills, strengthening their ability to manage psychiatric cases effectively through both theory and practice. Improved attitudes foster compassionate care, reducing stigma and misconceptions about mental illness. These advancements equip students for real-world clinical challenges, enhancing professional competence and workforce readiness. Ultimately, better-prepared nursing students contribute to higher-quality psychiatric care, benefiting patients and the healthcare system [65,66,71].

The implications of these findings are critical for nursing education. Incorporating psychiatric clerkships into the nursing curriculum provides students with a stronger knowledge base and better prepares them for the unique demands of mental health nursing. Educational institutions should consider extending the duration and depth of these clinical placements to maximize their impact. Additionally, it is essential that faculty members design well-structured clerkships, complete with clear learning objectives and consistent feedback, to foster optimal learning and professional development [67, 68].

5. Limitation

Major limitations include the study's small sample size and single-group design at Sharda University, limiting generalizability. Future research in India should explore ethnic variations in stigmatizing attitudes towards mental illness. Qualitative methods could elucidate factors influencing attitude changes, including teacher attitudes, training site dynamics, and personal mental health histories. Additionally, future studies should evaluate the psychiatry clerkship's influence on medical students' career attitudes to enhance specialty recruitment.

6. Conclusions

In conclusion, the psychiatry clerkship significantly enhanced the knowledge of undergraduate nursing students, demonstrating the critical role of hands-on clinical experience in psychiatric nursing education. It also help them to shape their professionalism by increasing interest towards psychiatry nursing. By bridging the gap between theory and practice, clerkships foster a deeper understanding of psychiatric concepts, improve cognitive skills, and prepare students for effective clinical practice. The findings advocate for the integration of comprehensive psychiatry clerkships into nursing curricula to ensure the development of well-rounded, knowledgeable, and competent nursing professionals.

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