

Effectiveness of Nurse Led Teaching on Knowledge Regarding Medical Clowning Among the Nursing Students

Dr. Arunima Sreeletha¹, Dr. Vaishali Jadhav², Mrs. Natasha Mahajan³, Dr. Gargee Karadkar⁴, Ms. Sayali Shete⁵

¹Associate Professor

Email ID: arunima.sreeletha@bharativedyapeeth.edu

²Professor

Email ID: vaishali.jadhav@bharativedyapeeth.edu

³Assistant Professor

Email ID: natasha.mahajan@bharativedyapeeth.edu

⁴Associate Professor, Bharati Vidyapeeth (Deemed to Be University), Navi Mumbai

Email ID: gargee.karadkar@bharativedyapeeth.edu

⁵Clinical Instructor, Bharati Vidyapeeth (Deemed to Be University), Pune

Email ID: sayali.shete@bharativedyapeeth.edu

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ABSTRACT

For most patients, especially youngsters who frequently feel scared and anxious during procedures involving needles, hospitals can be unpleasant. Medical clowns are talented entertainers with training in improvisation, physical comedy, magic, puppetry, and music. They are often referred to as therapeutic clowns or clown physicians. They employ these skills to make people laugh, encourage mental and physical health, and give sufferers hope. The families of patients and the medical personnel who care for them benefit from their work as well. MCs face a variety of difficulties when caring for ill children, adolescents, and their parents in pediatric settings. The impact of nurse led instruction on medical clowning among nursing students was assessed using a quantitative research methodology and quasi experimental one group pre-test post-test design. The study was carried out in few Navi Mumbai nursing college. Nursing students understanding of medical clowning improved as a result of the nurse led intervention.

1. INTRODUCTION

Hospitals can be stressful for most patients, especially children, who often experience fear and anxiety during needle-related procedures. This distress not only increases their pain but also makes medical procedures more challenging. Physicians can improve pain tolerance using cognitive psychological techniques like distraction, including TV, kaleidoscopes, storytelling, and bubble blowing¹.

Medical clowns, also known as therapeutic clowns or clown doctors, are skilled performers trained in improvisation, physical comedy, magic, puppetry, and music. They use these talents to bring laughter, promote physical and mental well-being, and inspire hope in patients. Their work also positively impacts patients' families and the medical staff who interact with them. In pediatric settings, where they care for sick children, adolescents, and their parents, MCs encounter various challenges. These include supporting young patients who feel frustrated not only by their illness but also by the unfamiliar, isolated hospital environment².

Another challenge is talking to parents who are worried, anxious, and exhausted. Some parents don't feel comfortable letting MCs into their child's room, which makes it harder for MCs to support both the child and the parent. Another difficulty is that most pediatric medical visits involve three people—usually the child or teen, a parent, and a healthcare provider. These three-way conversations can be tricky, especially in a small, structured medical setting with clear hierarchies. Divya R. Conducted The study on emerging concept of hospital clowning shows that Clown interventions effectively reduce children's pain, anxiety, and psychological distress while also easing parental anxiety. Additionally, they enhance healthcare professionals' communication skills, strengthening the doctor-patient relationship³.

Study conducted by Maya Shimashi Barash et.al in 2024 reveals that Medical clowns have been shown to positively impact children by reducing stress and anxiety, enhancing cooperation, and improving their overall experience before medical procedures and throughout hospitalization⁴.

2. METHODOLOGY

The study adopts a quantitative research approach with a quasi-experimental one-group pre-test-post-test design to evaluate the effectiveness of nurse-led teaching on medical clowning among nursing students. This design facilitates the measurement of changes in students' knowledge levels before and after the educational intervention, providing a clear assessment of its impact. The study focuses on two key variables: the independent variable, which is the nurse-led teaching program on medical clowning, and the dependent variable, which is the level of knowledge among nursing students. The research was conducted in selected nursing colleges in Navi Mumbai, targeting graduate nursing students, particularly those in their third and final years of the BSc Nursing program. A sample of 104 nursing students was selected through a non-probability sampling technique using the lottery method, ensuring randomization within the eligible population. The inclusion criteria consisted of third and final-year BSc nursing students of both genders, while the exclusion criteria eliminated first and second-year BSc nursing students, Post Basic BSc (PBBSc) and MSc nursing students, and those who had previously attended any teaching session on medical clowning. To ensure the reliability of the data collection tool, a reliability test was conducted among 20 nursing students from a similar demographic. The data were analysed statistically, yielding a reliability coefficient of 0.9 using the test-retest method, indicating a high degree of consistency and reliability.

Data collection was conducted using the interview technique, allowing for direct interaction with participants to enhance the accuracy of responses. The research tool comprised two sections: Section A, which gathered demographic data such as age, gender, area of residence, and year of study, and Section B, which included a semi-structured questionnaire designed to assess students' knowledge of medical clowning. The questionnaire contained both structured and open-ended items to capture comprehensive insights into the participants' understanding of the topic. Ethical considerations were rigorously adhered to throughout the study. The research proposal, including the data collection tools, was submitted to the Institutional Ethical Committee for review and approval. Following the committee's recommendations, ethical clearance was obtained. Additionally, permission from the respective nursing colleges was secured, and informed consent was obtained from all participants, ensuring their voluntary participation, confidentiality, and the ethical integrity of the research process. This methodological framework ensured that the study was conducted in a scientifically rigorous and ethically responsible manner.

3. RESULTS

The analysis was done using differential and inferential analysis. The knowledge regarding medical clowning was assessed before and after nurse led teaching, the effectiveness also identified and determine association between pre-test knowledge selected demographic variables at significance level of 0.05. The frequency and percentage distribution of samples according to selected demographic variables. The table below shows the distribution of samples as per demographic variables.

Table No. 1 Distribution of samples as per demographic variables

n=104

Sociodemographic variables		Frequency	Percentage
Age	17-19	2	2 %
	19-21	75	72.11 %
	>21	27	26 %
Gender	Male	12	12%
	Female	92	88.46%
Area	Urban	95	91.34%
	Rural	9	9%
Year of study	3 rd year	64	62%
	4 th year	40	38.46%

The results shows that 2% of the students belongs to age group of 17 to 19 , 72.11% students belongs to age group of 19-21,

26% of the students belongs to age group of above 21years. 12 % students are male, 88.46 % students are female. 91.34 % students are belongs to urban area, 9 % students are belongs to rural. 62 % students are belongs to 3rd year, 38.46% students are belongs to 4th year.

The second part of the study assess the knowledge regarding medical clowning before and after nurse led teaching. After pre-test majority that is 76.92 % of students had average knowledge, after post-test majority had good knowledge.

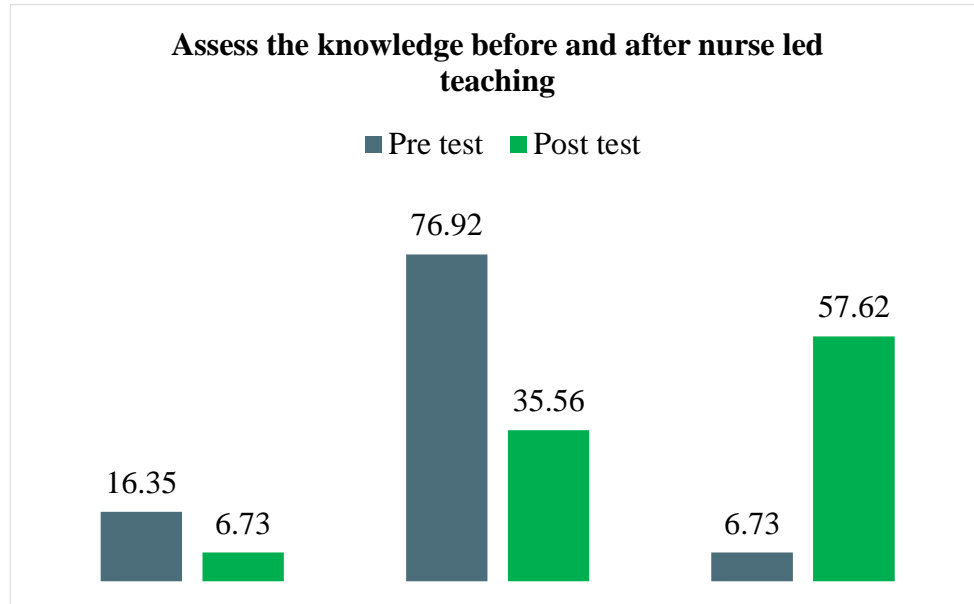


Figure No. 1 depicts the assessment knowledge before and after nurse led teaching

Table No. 2 Comparison of pre and post-test before and after nurse led teaching

n=104

Test	n	Mean \pm SD	Paired t Test	df	P-Value	Sig. at 5% level
Pre-Test	104	09.91 \pm 4.64	06.65	103	0.0001	Significant
Post-Test	104	14.17 \pm 4.89				

In effectiveness of nurse led teaching was assessed by paired “t” test pre-test. The pre-test mean & standard deviation is 09.91 \pm 4.64 and post –test mean & standard deviation is 14.17 \pm 4.89. The ‘t’ value is 0.0001. Since ‘t’ value is less than 0.05, its highly significant. The nurse led teaching was effective in improving the knowledge regarding medical clowning among nursing students.

Table No. 3 Association between knowledge score with selected demographic variables

n=104

Demographic variable		Poor	Average	Good	Chi-squares value	P-value	Significance
Age	17-19	1	1	1	4.98	.29	NS
	19-21	11	57	5			
	>21	5	22	1			
Gender	Male	1	9	2	2.52	.28	NS

	Female	16	71	5			
Area	Urban	16	72	6	0.46	.79	NS
	Rural	1	8	1			
Year of study	Third year	8	49	6	3.17	20	NS
	Fourth year	9	31	1			

The association between knowledge score with selected demographic variables and knowledge regarding medical clowning among nursing students. Since the P value is more than .05 age, gender, area and year of study have no significant association with knowledge level.

4. DISCUSSION

In the present study, knowledge regarding medical clowning was assessed among baccalaureate nursing students. Majority (72.11%) students belonged to 19-21 years; 88.46 % were female & 12 % students were male; 91.34 % students were from urban area and 9 % students were from rural areas; 62 % students were from 3rd year & 38.46% students were from 4th year. The review revealed that studies on utilization of medical clowning were conducted on paediatric age group. A study by Meiri N. et al included a sample of 100 children from 2 to 10 years undergoing blood tests or line insertion with a mean age of 5.3 ± 2.5 years⁵.

A theoretical article on medical clowning by Dionigi A. highlighted utilization of clowning for adults and elderly patients also brought about the positive effects on emotions improving the psychological symptoms and emotional reactivity⁶. The researchers identified a gap in research regarding health professionals' involvement in clowning. The current assessed the knowledge of nursing students regarding medical clowning before and after nurse led teaching. In the pre-test, 76.92 % had an average knowledge that was followed by the nurse led intervention. The post test showed an improvement in the knowledge scores with majority i.e. 56.62% students had good knowledge. There was no association between knowledge score with selected demographic variables of age, gender, area and year of study and knowledge regarding medical clowning among nursing students ($p > 0.05$). A study by Blain S. et al involved 13 nurses from children's rehabilitation hospital to assess the effects of therapeutic clowning. 69% nurses demonstrated consistent changes in patterns of responding during the presence of clowns; reduced negative mood states however, there was no differences in anxiety levels. It was concluded that clowning improved communication, negotiations in role patterns⁷. The current study was a quantitative study. There have been qualitative studies conducted on medical clowning. This concept was practiced worldwide. In a study by Babis et al mentioned about Dream doctors; an organization professional doctors who worked as medical clowns in paediatric ward settings, emergency rooms or operation theatres. Qualitative data collected from 35 medical clowns by digital ethnography as it had elaborated their experiences during the COVID pandemic period and were elaborated under the categories like struggle to interact in person with the patients which happened gradually once the restrictions were removed to provide in-person care. The nurses elaborated their experiences when adapting to the attire required to be as a clown and made use of colourful stickers tailored as per their roles in the settings. There were positive responses from patients as well as families thus provided critical comic and emotional relief⁸.

The present study involved intervention of nurse led teaching to undergraduate nursing students regarding medical clowning by conducting a pre-test and post-test. The methodology utilized in the study demonstrated an improvement in the knowledge scores. Active patient based learning strategies have been proved effective. A study by Hallin K et al on 616 students of different streams participated in an interprofessional course. The results demonstrated an increase in their perceived interprofessional competence after engaging in clinical teamwork training. Thus, teaching that involved different ways of communication with the patients would prove beneficial for positive patient outcomes⁹.

5. CONCLUSION

This study shows that medical clowning training provided by nurses greatly improves nursing students' understanding and comfort level with humor as a therapeutic strategy. Medical clowning has been shown to help patients feel less anxious, feel better emotionally, and communicate with nurses more effectively. Future nurses can embrace a more patient-centered, holistic approach to care by incorporating it into nursing curriculum. In order to ensure its efficacy outside of pediatrics, including geriatric and palliative care, more study should examine its effects in a variety of healthcare settings. By adopting medical clowning, nurses can help patients feel better cared for and healed.

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