A Study to assess the effectiveness of an assisted teaching programme on knowledge and Attitude regarding the management of psychiatric Emergencies among staff nurses in KMCH Hospital at Coimbatore

Elanjium.M[1], Uma.K[2], Jamunarani.M[3*]

Department of Mental Health Nursing, Sree Sakthi Mayil College of Nursing, Kumarapalayam, Namakkal.
E-mail: nursingprinicipal@jkkn.ac.in

Abstract

Introduction: Psychiatric emergencies pose a serious threat both to patients and the community. Hence, timely intervention by the healthcare professionals, especially nurses, is critical. Most nurses are, however, not adequately trained and do not feel confident while dealing with these emergencies. The purpose of this study was to assess the effectiveness of a video-assisted teaching program on the knowledge and attitudes of staff nurses at KMCH Hospital, Coimbatore, towards the management of psychiatric emergencies.

Methodology: Quasi-experimental study design-One group pretest and post-test - Fifty staff nurses were selected through purposive sampling. A structured video module on the key concepts of psychiatric emergency care was shown to the participants followed by an interactive session. Knowledge and attitude regarding emergency psychiatric care were assessed pre- and post-intervention using a structured questionnaire. Data were analyzed by applying paired t-tests, chi-square tests, and Pearson's correlation coefficient.

Results: The intervention improved the knowledge levels of the nurses since 40% of participants scored adequately in the pretest and 52% in the post-test. Scores on attitude also reflected a positive shift since 28% of participants adopted favorable attitudes compared to no one in the pre-test. There was huge mean difference with the post-tests as compared to pre-tests with t-value of knowledge score being 5.97, p < 0.001 and with attitudes t-value equal to 16.99, p < 0.001. Moreover, there is a moderate positive relationship correlation between knowledge and attitude improvements as with r = 0.4441, p = 0.0012.

Conclusion: The video-assisted teaching program really improved the knowledge and attitude of staff nurses toward an improvement in psychiatric emergency skills. Such programs integrated with regular training may ensure betterment of patients through a more confident nursing staff.

Keywords: Video-assisted teaching, Psychiatric emergencies, Nursing education, Knowledge enhancement, Attitude improvement

Introduction

Psychiatric emergencies are serious crises where there is acute interruption of a patient's behaviour, thoughts, or emotions posing a direct risk to himself or others.[1] Examples range from suicidal ideation and acute psychosis to aggressive behavior or withdrawal syndromes. This is unlike any medical emergency because psychiatric crises directly pose a threat not just to the individual but to the public and social systems.[2] These emergencies demand very timely and appropriate interventions with a very large proportion taking off from frontline healthcare providers like staff nurses. A very significant gap exists in the training of nurses to manage such cases. A review of current practice, many nursing professionals do not have adequate knowledge and confidence in managing psychiatric emergencies.3 Kayaroganam et al. (2022) highlighted that 66.6% of nurses lacked adequate knowledge about psychiatric emergency management-the truth is, this becomes a critical need for targeted educational interventions.[4] This may mean that there is a significant percentage of underprepared nurses who, on their part, would lead to late or inappropriate interventions for psychiatric emergencies and subsequently worsen the outcome.

Video-assisted teaching programs have been explored because of the need for innovative training solutions in this field.[5] The use of visual and structured educational content allows for the conveyance of complex concepts consistently and engagingly, making it especially well-suited for training on the nuanced aspects of psychiatric care. Natarajan J. (2022) demonstrated that a video-assisted teaching intervention increased the scores of knowledge by 32% of nursing students in mental health issues, indicating that such approaches can be beneficial for learning interventions.[6] This method, therefore, enhances knowledge retention. It further helps the nurse build more confidence in the application of concepts learned in real field practice.

With such rising demand for effective management of psychiatric emergencies, there is a call for upgrading the skills of nursing staff through readily accessible and impactful training programs.[7] Video-assisted teaching has been seen as an excellent bridge in bringing theory to practice, thereby allowing for flexible and repeatable learning.[8] The present study will check if video-assisted teaching programme helps the knowledge and attitude of staff nurses of KMCH Hospital, Coimbatore about psychiatric emergency management. The proposed research uses quasi-experimental designs that utilize both pre-test and post-test methods to check whether the learning process, using videos, would influence the nursing staff's preparation and capability for psychiatric emergency management. The study's findings might shed light on video-assisted teaching playing a strategic intervention role in promoting nursing education and thus improving patient outcomes in psychiatric emergency settings.

Materials and Methods

Study Design

The research design used in this study was quasi-experimental. This research employed a one-group pre-test and post-test design to measure the effect of video-assisted teaching on the knowledge and attitude of the staff nurses concerning psychiatric emergencies. This type of study design exposed the participants to measurement regarding knowledge and attitude before and after the intervention, making it possible to compare the change.

Study Setting

The study was conducted in KMCH Hospital, Coimbatore, a tertiary care center with available facilities for both general and special psychiatric care. The location was chosen based on the patient population representing diversity and the fact that it housed a significant number of staff nurses with whom the intervention could be assessed appropriately.

Participants

This research study utilized the convenient sample size of 50 staff nurses working in a variety of departments within KMCH Hospital. Inclusion criteria in this study were based on:
- Registered nurses holding a diploma/degree in nursing.
- Working in an emergency/psychiatric area of the hospital.
- Voluntary intent to participate in the current study with the provision for informed consent.

Excluded criteria involved:
- Staff nurses who underwent a similar training program and have received their previous training with less than a year to the present.
- Unavailability of respondents during the research period.

Sampling Technique

A non-probability purposive sampling technique was used to select participants. This approach allowed the researcher to intentionally choose participants who met the study's criteria and were best positioned to benefit from and contribute to the research objectives.

Intervention: Video-Assisted Teaching Program

The intervention involved a video-assisted teaching program designed to enhance knowledge and attitudes toward managing psychiatric emergencies. The video content was developed in collaboration with mental health nursing experts and included:
- Definitions and classifications of psychiatric emergencies.
- Strategies for managing common psychiatric emergencies such as acute psychosis, suicidal ideation, and substance withdrawal.
- Best practices for communication and de-escalation techniques.
- Case studies illustrating real-life scenarios and appropriate nursing responses.

The video content was delivered over a 45-minute session using audio-visual aids in a classroom setting. The session was followed by a 15-minute interactive discussion, where nurses could ask questions and clarify concepts.

Data Collection Procedure

Pre-Test Assessment:

• Prior to the intervention, a structured knowledge questionnaire and a Likert scale-based attitude questionnaire were administered to all participants to assess their baseline knowledge and attitudes regarding the management of psychiatric emergencies.

• The knowledge questionnaire included 20 multiple-choice questions covering key concepts, while the attitude questionnaire used a 5-point Likert scale to measure nurses' perceptions and attitudes towards psychiatric emergency management.

Post-Test Assessment:

• After the video-assisted teaching program, the same questionnaires were administered on the 8th day to evaluate changes in knowledge and attitude.

Data Analysis

The data gathered were categorized, tabulated, and analyzed using descriptive and inferential statistics. Descriptive statistics, which include mean, standard deviation, and percentage, were used in summarizing demographic data and both pre-test and post-test scores. To determine the level of effectiveness of the video-assisted teaching program about improving knowledge and attitude, paired t-tests are conducted to compare pretest and posttest scores. Chi-square tests were run to assess whether the participant's demographic characteristic correlated with scores on knowledge and attitude. The Pearson's correlation coefficient assessed the relationship between the change in knowledge and attitude.

Ethical Considerations

Ethical clearance for the research was sought through the Institutional Ethics Committee of KMCH Hospital. Written informed consent was taken from all participants before the study was conducted. The participants were assured confidentiality and were very free to withdraw their participation at any stage without penalty. The intervention was prepared to be risk-free, with purely educational content.

Validity and Reliability

The content validity of the structured questionnaire was confirmed by a panel of five experts in mental health nursing, ensuring that the tool effectively measured the intended constructs. The reliability of the knowledge questionnaire was evaluated using test-retest reliability ($r = 0.89$), demonstrating a high level of consistency in measurements. The internal consistency of the attitude questionnaire was assessed using Cronbach's alpha ($\alpha = 0.81$), indicating a satisfactory level of reliability.

Pilot Study

A pilot study was conducted with 8 staff nurses from a nearby hospital to test the feasibility and clarity of the study instruments and procedure. Based on feedback, minor adjustments were made to the video content and questionnaires to improve understanding.

RESULT:

Improvement in Knowledge Levels

The analysis of knowledge levels before and after the intervention revealed a significant improvement among the participants. In the pre-test, 14% of the nurses demonstrated inadequate knowledge of managing psychiatric emergencies, suggesting a limited understanding of appropriate interventions. Meanwhile, 46% had a moderate level of knowledge, indicating a basic but incomplete comprehension of the necessary protocols. Around 40% of the nurses exhibited adequate knowledge, reflecting a reasonable grasp of the subject.

Following the video-assisted teaching program, there was a marked shift in the knowledge levels of the participants. Post-test results showed that 52% of the staff nurses achieved adequate knowledge, while 48% retained a moderate level of understanding. Importantly, no nurses remained in the inadequate knowledge category after the intervention. The increase in the percentage of nurses with adequate knowledge highlights the effectiveness of the program in elevating the overall knowledge base of the participants.

The statistical analysis of the knowledge scores further supports these findings. A paired t-test revealed a significant difference between pre-test and post-test scores, with a mean difference of 2.48 (pre-test mean = 11.26, post-test mean = 13.74), yielding a t-value of 5.97 and a p-value less than 0.001. These results confirm that the video-assisted teaching program significantly improved the nurses' understanding of managing psychiatric emergencies.

Table 1: Frequency and Percentage Distribution of Demographic Variables Among Staff Nurses

Demographic Variables	Frequency (n)	Percentage (%)
Age (years)		
20-25	27	54
26-30	14	28
>30	9	18
Gender		
Male	21	42
Female	29	58
Religion		

Hindu	34	68
Muslim	6	12
Christian	10	20
Educational Qualification		
GNM	9	18
B.Sc.	31	62
P.B.Sc.	5	10
M.Sc.	5	10
Marital Status		
Married	13	26
Unmarried	37	74
Year of Experience in KMCH		
≤1 year	15	30
2-3 years	24	48
4-6 years	11	22
Working Area		
CCU	14	28
ICU	9	18
General Ward	12	24
Psychiatric Ward	15	30

### *Changes in Attitudes Towards Psychiatric Emergency Management*

In addition to knowledge, the study also measured changes in the attitudes of the participants towards psychiatric emergency management. Prior to the intervention, a large proportion of the nurses (60%) held an unfavorable attitude, reflecting a lack of confidence or negative perceptions towards handling psychiatric crises. The remaining 40% of the participants displayed a neutral attitude, indicating neither positive nor negative leanings. None of the nurses demonstrated a favorable attitude in the pre-test phase, emphasizing the need for targeted attitude improvement.

After the video-assisted teaching program, a positive shift in attitudes was observed. The post-test results showed that 28% of the nurses had developed a favorable attitude towards managing psychiatric emergencies, suggesting a more positive and proactive approach. The majority of the nurses (72%) moved to a neutral stance, indicating a shift

away from the initial unfavorable attitudes. Notably, no participants retained an unfavorable attitude following the intervention, underscoring the success of the educational program in improving their perceptions.

Statistical analysis of the attitude scores also revealed a significant enhancement. The paired t-test indicated a mean difference of 25.36 between the pre-test and post-test scores (pre-test mean = 43.34, post-test mean = 68.7), with a t-value of 16.99 and a p-value less than 0.001. This statistically significant improvement suggests that the video-assisted teaching program played a crucial role in enhancing the attitudes of the nurses towards the management of psychiatric emergencies.

Figure 1: Pre-Test and Post-Test Levels of Knowledge and Attitude Among Staff Nurses
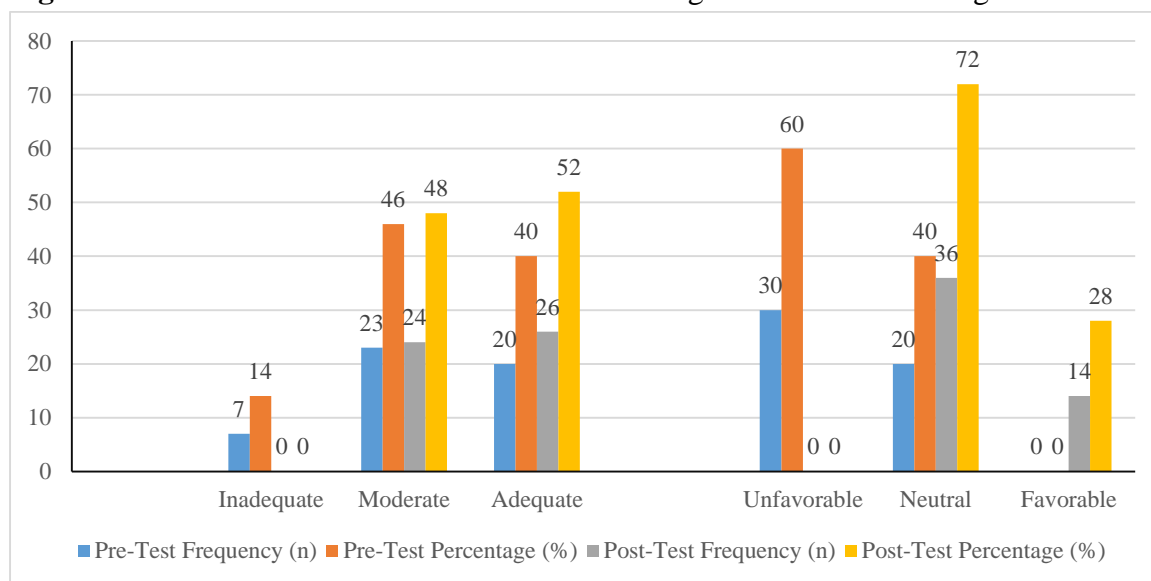
Correlation Between Knowledge and Attitude Changes

The study further explored the relationship between the improvements in knowledge and attitude scores. Analysis using Pearson's correlation coefficient revealed a moderate positive correlation (r = 0.4441, p = 0.0012) between the changes in knowledge and attitudes. This indicates that as the nurses' knowledge about managing psychiatric emergencies increased, their attitudes also improved. The correlation suggests that the enhanced understanding facilitated a more confident and willing approach to handling these emergencies, highlighting the interconnectedness of knowledge and attitude in professional practice.

Influence of Demographic Variables

The association between demographic factors such as age, gender, years of experience, educational qualification, and work area on the effectiveness of the video-assisted teaching program was examined using Chi-square tests. The results indicated no significant association between most demographic variables and the improvements in knowledge and attitude scores, suggesting that the program's effectiveness was consistent across different groups of nurses.

However, educational qualification showed some influence on knowledge gains, with nurses holding higher degrees, such as B.Sc. or M.Sc. in Nursing, demonstrating slightly greater improvements in their post-test knowledge scores compared to those with diploma qualifications. This finding suggests that prior academic exposure might play a role in how quickly new knowledge is absorbed.

DISCUSSION:

The present study was designed to assess the video-assisted teaching program about its effectiveness in creating knowledge and attitudes among staff nurses concerning psychiatric emergencies management in KMCH Hospital, Coimbatore. This educational intervention may bring a positive change regarding preparedness by the nursing staff that later on will be translated into better management of psychiatric crisis.

Outcomes From the intervention study, marked shift towards a more satisfactory level of knowledge was observed. Overall, only 40% had adequate knowledge before the program; however, 14% fell into the inadequate category. After the intervention, 52% achieved adequate knowledge and no participant stayed in the inadequate group. This huge change demonstrates that video-based learning can clarify things and support the repetition of core ideas about psychiatric emergencies.

This goes with previous studies such as Abilitin et al. (2015) where efficacy of video-based modules for the acquisition of knowledge about substance abuse among teenagers has been shown. Vi of video content enables one to remember better and recalls, so it is really a helpful tool in education for nurses. The intervention improved the attitude of staff nurses regarding dealing with psychiatric emergencies.9 Before the intervention, 60% reported an unfavorable attitude towards the handling of psychiatric emergencies, but no one reported a positive outlook at that time. At the end, 28% had developed a positive attitude and 72% shifted to neutral attitude. Shifts away from unfavorable attitudes point out that targeted education moulds perceptions and improves readiness in handling complex patient scenarios. Attitudinal change is important for the reason that it manifests the change in attitudes of nurses toward an active role that they can play in the management of psychiatric crises.10 According to Suresh and Divya (2020) video-assisted teaching depicted the effect on the attitude of nursing students who were properly positive about the handling of complicated mental illness cases. The positive cordentified between knowledge and attitude changes is 0.4441, p = 0.0012. The more they understood, the more they were confident regarding their management of psychiatric emergencies. Thus, it establishes that the continuous learning that is necessary to enhance the positive and proactive approach among healthcare providers.

Most of the demographic variables did not have any kind of statistically significant association with any kind of improvement in knowledge and attitude. Education qualification did influence the aspects of knowledge-gain influences, in that the B.Sc. and M.Sc. in Nursing graduates performed better post-test scores compared to the diploma holders. This would thus mean that a basic academic background would facilitate better reception of new information, a premise consistent with findings by Baldacara et al. (2021) regarding training interventions in mental health. Consistency in knowlement across other demographic parameters such as age, sex, and years of nursing experience reveals that the

video-assisted teaching program applies and is quite effective in a vast population of professional nurses. Adaptability ensures a fair distribution of competency handling similar levels of psychiatric emergencies across an entire workforce, creating an evenly skilled nursing force in the end.

For the nurse, findings of this study would be of extreme implications in practice-primarily further education and training. Video-based teaching programs become cost and scale efficient; they specifically are crucial to areas under critical focus such as psychiatric management of emergencies. There is assured competency and preparedness at the very moment of handling emergencies because of continuous learning from updated best practices within the employee when regular in-service training programs for hospitals start integrating the video teaching programs.

The improvements in attitudes mean that video-assisted teaching can reduce the emotional and psychological barriers normally attached to the psychiatric cases. Improvement of attitudes predisposes nurses toward being compassionate with patients, hence applying techniques of de-escalation that are helpful during psychiatric emergencies. According to this notion, Donovan (2011) argued that attitudinal training was a requirement in order to enhance outcomes in psychiatric settings. Limitations and Future Researhe study demonstrate the effectiveness of video-assisted teaching, it is not without limitations. The quasi-experimental design of this study lacked a control group, which could not allow for any comparisons across groups. In the next study, the researcher could be allowed to conduct an RCT, which would strengthen results. Even long-term follow-up studies measure knowledge and attitude retention overtime for very useful insights on long-term effects from video-based learning.

Conclusions

The results of this study pointed out that a video-assisted teaching program can be quite effective in the education process for enhancing the knowledge and attitude of staff nurses about psychiatric emergency management. The drastic change in the knowledge levels, from the pre-test to the post-test, and the shifting toward more favorable attitudes indicated that the program has great potential to bridge the gap existing in nursing education. The intervention successfully equipped nurses with a better understanding and a more positive approach toward handling complex psychiatric cases by providing a structured, engaging, and accessible learning format.

It can be concluded that the positive relationship between enhanced knowledge and positive attitudes means that as nursing skills increase, so does their self-esteem and willingness to perform effective psychiatric emergency management. That is, most demographic variables lacked any significant association with the success of the intervention, which therefore makes video-assisted learning suitable for a wide group of nurses, making it a convenient tool for training. These findings raise the prospect that video-assisted teaching should be embedded in standard training programs offered to nurses, especially for those in institutions where psychiartic emergencies are commonly encountered. Such interventions can ultimately mean better outcomes for patients, as well as a safer working environment in healthcare, through greater preparedness and competence of staff nurses.

Future studies would look at long-term retention in knowledge and attitudes post intervention and evaluate the impact that similar programs have on actual clinical practice and patient care.

Acknowledgments

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