

# Effectiveness of Video-assisted Teaching on Knowledge and Attitude Regarding De-escalation and Breakaway Technique for Aggressive Behavior among Staff Nurses, at Selected Hospitals, Puducherry

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## ABSTRACT

**Background:** Nursing staff are particularly vulnerable to aggression because they are frequently on the front lines: physical assault at work was reported by 46% of nurses working in working-age psychiatric services and 64% of nurses working in older people's psychiatric services, respectively. Nursing and Midwifery Council (NMC), 2001, p. 104, this study is based on video-assisted teaching is an awareness program about de-escalation and breakaway technique knowledge and attitude should be improved among staff nurse.

**Aims and objectives:** To assess the level of knowledge and attitude regarding de-escalation and breakaway technique among staff nurses, to assess the effectiveness of video-assisted teaching on knowledge and attitude, and to associate the level of knowledge and attitude regarding de-escalation and breakaway technique among staff nurses in the experimental and control groups with their selected demographic variables.

**Materials and methods:** The study employed a quasi-experimental, non-randomized control group design. A convenience sampling technique was used to select a sample of 200 staff nurses. A structured closed-ended questionnaire and the management of aggression and violence attitude scale (MAVAS) were used to assess it.

**Results:** The study found that video-assisted teaching had a statistically significant impact on staff nurses' knowledge and attitudes about de-escalation and breakaway techniques for aggressive behavior at the *p* value 0.001 level.

**Conclusion:** According to the findings, video-assisted teaching was effective in improving staff nurses' knowledge and attitudes about de-escalation and breakaway techniques for aggressive behavior.

**Keywords:** Aggression, De-escalation and breakaway technique, Effectiveness, Staff nurses, Video-assisted teaching.

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## INTRODUCTION

Across the mental health system, aggressive behavior toward clinical staff is common.<sup>1</sup> Nursing workers are particularly vulnerable to violence because they are always on the front lines: physical abuse at work was reported by 46% of nurses in working-age psychiatric services and 64% of nurses in older people's psychiatric services, respectively (NMC, 2001: p. 104).

De-escalation is simply defined as "defusing" or "talking down" an agitated individual into a calmer state to prevent violent behavior.<sup>2</sup> Healthcare professionals may need to use physical interventions if a de-escalation technique fails and a situation rapidly escalates or becomes acutely dangerous. A breakaway technique is a skilled manual method of physical restraint that is used by a group of typically trained individuals to control an aggressive patient and restore safety in the clinical setting.

According to the National Crime Victimization Survey conducted by the US Department of Justice from 2002 to 2006, physicians had a rate of 16.2 per 1,000, while nurses had a rate of 21.9 per 1,000. On the other hand, psychiatrists and mental healthcare providers had a rate of 68.2 per 1,000, while mental health custodial staff had a rate of 69 per 1,000. According to research, 40–50% of psychiatry residents may be physically assaulted by a patient during their 4-year residency.<sup>3</sup>

The investigator wanted to raise awareness of knowledge and attitude regarding de-escalation and breakaway technique through

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video-assisted teaching due to a lack of knowledge regarding management of patients with aggressive behavior among staff nurses.<sup>4</sup>

## STATEMENT OF THE PROBLEM

A study on effectiveness of video-assisted teaching on knowledge and attitude regarding de-escalation and breakaway technique for aggressive behavior among staff nurses, at Selected Hospitals, Puducherry.

## Objectives

- To assess the level of knowledge and attitude regarding de-escalation and breakaway technique among staff nurses in the experimental and control groups.
- To assess the effectiveness of video-assisted teaching on knowledge and attitude regarding de-escalation and breakaway technique among staff nurses in the experimental group.
- To associate the level of knowledge and attitude regarding de-escalation and breakaway technique among staff nurses in the experimental and control groups with their selected demographic variables.

## Hypotheses

H<sub>1</sub>: There is a significant difference in the level of knowledge and attitude regarding de-escalation and breakaway techniques among staff nurses before and after administering video-assisted teaching in the experimental group.

H<sub>2</sub>: There is a significant association between the level of knowledge and attitude regarding de-escalation and breakaway techniques among staff nurses before administering video-assisted teaching with their selected demographic variables in both the experimental and control groups.

## RESEARCH METHODOLOGY

In the quantitative study, a quasi-experimental non-randomized control group design was used. A structured closed-ended questionnaire and the management of aggression and violence attitude scale (MAVAS)<sup>5</sup> were used in the study at Srimanakula Vinayagar Medical College and Hospital and Srivenkateshwaraa Medical College Hospital and Research Center.

On the first day of data collection, a pre-test was performed [using a closed-ended structured questionnaire and the MAVAS Likert scale for 100 samples of the experimental group and 100 samples of the control group who were selected using a convenient sampling technique and given 45 minutes to answer the questions]. Following that, on the same day, video-assisted teaching on de-escalation and breakaway strategy to manage aggression clients was provided to the selected samples, and 1 week later, a post-test

was conducted for the same group of a sample using the same collection of questionnaires as the pre-test.

Twenty staff nurses were chosen from the experimental and control groups for the pilot study. Data were obtained from all 10 staff nurses using standardized closed-ended questionnaires and a Likert scale in the pre-test and post-test after video-assisted teaching. The pilot study's findings demonstrated that the total was found to be accurate and feasible.

## RESULTS AND DISCUSSION

The first objective was to assess the level of knowledge and attitude regarding de-escalation and breakaway techniques among staff nurses in the experimental and control groups.

Before the intervention, 80% of staff nurses in the experimental group had inadequate knowledge, while 20% of staff nurses had moderate knowledge. In the control group, 80% of staff nurses had inadequate knowledge, while 20% of staff nurses had moderate knowledge, as shown in Table 1.

Before the intervention, 70% of staff nurses in the experimental group had a negative attitude and 30% had a positive attitude, while 72% of staff nurses in the control group had a negative attitude and 28% of staff nurses had a positive attitude, as shown in Table 2. The findings were backed up by a study conducted by Johannes Nau (2007) on staff nurse experiences in dealing with patient aggression.<sup>6</sup>

The second objective was to assess the effectiveness of video-assisted teaching on knowledge and attitude regarding de-escalation and breakaway techniques among staff nurses in the experimental group.

As shown in Table 1, 57% of staff nurses gained moderate knowledge and 43% of staff nurses gained adequate knowledge after receiving intervention in the experimental group. As shown in Table 2, 94% of staff nurses had a positive attitude after receiving intervention in the experimental group, while only 6% had a negative attitude. Before the intervention, the mean for knowledge was 4.96 and 43.68 for attitude in the experimental group, whereas, after the intervention, the mean was 12.43 for knowledge and 59.49 for attitude. The overall paired "t" test value for knowledge is 33.89, and the overall paired "t" test value for attitude is 16.62, both of which are statistically highly significant at the  $p = 0.001$  level, as shown in Table 3.

**Table 1:** Frequency and percentage-wise distribution of knowledge among staff nurses in the experimental and control groups.  $n = 200$

Level of knowledge	Control group ( $n = 100$ )				Experimental group ( $n = 100$ )			
	Pre-test		Post-test		Pre-test		Post-test	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Inadequate	80	80	80	80	80	80	–	–
Moderate	20	20	20	20	20	20	57	57
Adequate	–	–	–	–	–	–	43	43
Total	100	100	100	100	100	100	100	100

**Table 2:** Frequency and percentage-wise distribution on attitude among staff nurses in the experimental and control groups.  $n = 200$

Level of attitude	Control group ( $n = 100$ )				Experimental group ( $n = 100$ )			
	Pre-test		Post-test		Pre-test		Post-test	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Negative	72	72	72	72	70	70	6	6
Positive	28	28	28	28	30	30	94	94
Total	100	100	100	100	100	100	100	100

**Table 3:** Area-wise mean, SD, mean percentage, and paired *t*-test value in the control and experimental group on knowledge and attitude regarding de-escalation and breakaway technique among staff nurses

	Control group				Experimental group			
	Pre-test		Post-test		Pre-test		Post-test	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Overall	4.94	2.05	4.95	1.98	4.96	2.05	12.43	0.88
Knowledge	43.61	4.13	43.64	4.10	43.68	4.19	59.49	8.16
Attitude								

\**p* < 0.05, significant and \*\**p* < 0.01 and \*\*\**p* < 0.001, Highly significant

As a result, hypothesis 1 (H<sub>1</sub>) the difference in knowledge and attitude toward de-escalation and breakaway techniques among staff nurses in the experimental group before and after video-assisted teaching was accepted at the *p* = 0.001 level, which is highly significant. The study finding was supported by Huang et al. (2009) conducted a study on knowledge, attitudes, and practice: the effectiveness of an in-service education program in handling aggressive behavior of the patient.<sup>7</sup> The intervention group received a 90-minute in-service education program, and the results showed a significant improvement in knowledge (*p* = 0.000), attitudes (*p* = 0.007), and self-reported practices (*p* = 0.048) in the intervention group. As a result, it was determined that after the 90-minute in-service education program, knowledge and skills had improved.

In Table 3, the result was statistically tested by paired “*t*” test. The result was not found to be significant at *p* < 0.001 in the control group. The result was statistically tested by paired “*t*” test. The result was found to be significant at *p* < 0.001, because of the intervention. It indicates that the video-assisted teaching was very effective to improve the knowledge and attitude regarding de-escalation and breakaway technique in caring for aggressive clients.

The third objective was to associate the pre-test score on knowledge and attitude regarding de-escalation and breakaway techniques among staff nurses in the experimental and control groups with their selected demographic variables.

Finally, it appears that there is a significant relationship between pre-test scores and selected demographic variables such as previous experience, working area, and training program completion. As a result, hypothesis 2 is valid (H<sub>2</sub>) before administering video-assisted teaching with their selected demographic variables in both the experimental and control groups; there was a significant association between staff nurses’ knowledge and attitudes about de-escalation and breakaway techniques.

## RECOMMENDATIONS

- Include detailed portions regarding identification and management of a client with aggressive behavior among nursing student in the syllabus.
- Conduct a study on knowledge and attitude regarding de-escalation and breakaway techniques in caring clients with aggressive behavior among teachers in college and school of nursing.
- Conduct similar studies for healthcare team members who are taking care of the patients.
- Conduct a study on knowledge and attitude regarding different techniques used in the management of a client with aggressive behavior among staff nurses.

## CONCLUSION

The study’s findings suggest that video-assisted teaching can help staff nurses improve their knowledge and attitudes about de-escalation and breakaway techniques, as well as develop adequate knowledge and a positive attitude toward aggressive behavior.

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