

Professional nurses' knowledge and skills in the management of aggressive patients in a psychiatric hospital in the Western Cape

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Abstract

Aggression and violence by patients towards psychiatric nurses are a global issue. Professional nurses working in psychiatric hospitals are required to look after psychiatric patients who may become aggressive. They may not be equipped to deal with aggression as the focus of nursing is on patient care, thus they may not have the necessary skills and knowledge to intervene in aggressive episodes. A quantitative approach, descriptive design was used to determine the knowledge and skills of professional nurses in managing aggression of psychiatric patients. The study was conducted in a psychiatric hospital in the Western Cape. The target population consisted of 119 professional nurses working in the psychiatric hospital. An all-inclusive sample of professional nurses was selected to complete a self-developed structured questionnaire. The overall Cronbach's Alpha for the instrument was 0.721. A total of 70 questionnaires were handed out, yielding a return of 52 completed questionnaires. The response rate was 74%. Data analysis was done using SPSS version 22 from which descriptive data was obtained. Findings suggest that nurses are likely to be exposed to verbal aggression as opposed to sexual aggression. Nurses with less years of experience had more knowledge than experienced nurses who have been in practice longer. Nurses who had training in aggression management reported that it did not meet their needs. Overall, the findings revealed that nurses have good (above 80) knowledge about management of aggressive psychiatric patients. There is a need for on-going in-service training and refresher courses in the management of aggression. There should be a needs analysis prior to the commencement of the training.

Introduction and background

Aggression and violence by patients towards psychiatric nurses are a global issue (Maguire & Ryan, 2007:120). With mental illnesses being the largest proportion of the burden of disease, namely, 7.4% (95% uncertainty interval 6.2–8.6) of disability-adjusted life years (DALYs) and 22.9% (18.6–27.2) of years lived with disability (YLDs) worldwide in 2010 (Lynskey & Strang, 2013:1540), nurses are faced with the challenge of providing nursing care to aggressive psychiatric patients. Duxbury and Wright (2011:22) and the American Psychiatric Nurses Association (2007) assert that aggression of patients in healthcare settings raises concerns about the safety of both patient and staff. According to Swarts, Niehaus, Koen and Macris (2010:189), staff working in psychiatric hospitals

are assaulted by patients approximately seven (7) to fourteen (14) times per month. Foster et al. (2007) assert that all staff are vulnerable to violence and aggression, especially those who have direct contact with the public. These staff would include ambulance and emergency services personnel and nurses.

In a study conducted by Khalil (2010:187) at a health institution in Cape Town, an upward trend in violence in hospitals was reported. The nurses in a general hospital reported the highest incidents of verbal abuse (Khalil, 2010:187), while in psychiatric hospitals, nurses are more likely to be physically assaulted (Moylan & Cullinan, 2011:531).

The cause of aggression and violence by psychiatric patients towards nurses may be due to a myriad factors. These include, among others, patients who are admitted with a history of substance abuse (Pluddemann, Dada, Parry, Parker, Temmingh, Van Heerden, De Clercq & Lewis, 2013:46), the non-voluntary admission of patients (*Mental Health Care Act 17 of 2002*). In addition, a variety of mental illnesses have been associated with the incidences of aggression in the health care settings mania and schizophrenia being the most commonly reported (Duxbury, 2002:326).

The South African Stress and Health (SASH) study was the largest scale population study based on common mental health disorders in the country and aimed at estimating the national life time prevalence of mental illness in the South African population (Herman, Stein, Seedat, Heeringa, Moomal & Williams, 2009:343). However, the most prevalent lifetime mental disorder in the Western Cape is substance abuse with a prevalence rate of 20.6%. This study also revealed that the Western Cape has the highest 12-month prevalence and lifetime rates of substance abuse at 42% and the Northern Cape with 29%, which was the lowest prevalence and lifetime rate of substance abuse (Herman et al., 2009). According to Soyka (2000:347), substance misuse among patients with major mental disorders, especially schizophrenia, is a major risk factor for violence. The effect of substance misuse on patients produces adverse effects such as psychosis, hallucinations and anxiety (Pluddemann et al., 2013:46). A study was conducted by Pluddemann et al. (2013:47) on monitoring the prevalence of methamphetamine-related presentations at psychiatric hospital in Cape Town. Pluddemann et al. (2013:47) alluded to the aggressive behaviour, which was the most common symptom displayed by these patients.

Nurses serve as the frontline care providers in the country's health system, in particular the mental health system in South Africa (Department of Health, 2008:8). Nurses are thus required to have knowledge and skills of how to manage mentally ill aggressive patients who are aggressive without being hurt in the process. In order to do this, psychiatric nurses need to be educated and trained in understanding mental illnesses and their impact on patients' behaviours.

Statement of the research problem

Nurses are faced with aggressive incidences by patients during their daily practices in psychiatric hospitals (Jonkers et al., 2008:292). Some patients become aggressive without being provoked. Aggressive behaviours expose nurses to unnecessary stress and can lead

them to become less interested in the care they provide to patients (Inoue et al., 2006:49). Anecdotal evidence suggests that nurses experience difficulty in managing aggressive patients in psychiatric hospitals. This may be due to lack of confidence in dealing with aggressive patients. Literature (Foster et al., 2007:146) alludes to the lack of knowledge and skills during the process of interacting with these patients that nurses may experience. This study therefore aims to gain insight and understanding about the knowledge and skills professional nurses have in managing aggressive patients in a psychiatric hospital in the Western Cape.

Purpose of the study

The purpose of the study is to determine the knowledge and skills of professional nurses in managing aggression of patients in a psychiatric hospital in the Western Cape.

Objectives:

1. To determine the knowledge professional nurses have of managing aggressive psychiatric patients at a psychiatric hospital.
2. To determine the skills professional nurses have to manage aggressive patients.

Definitions of key concepts

Aggression is the behaviour aimed at causing harm, which can be verbal behaviour such as an insults and physical behaviour that cause injury to self and others, for example, being kicked or slapped (Uys & Middleton, 2014:287). In this study, aggression will be any verbal behaviour that comprises insulting, threatening or disruptive behaviour or physical behaviour, and that such assault by psychiatric patients is directed towards self or others.

Knowledge is the information and knowledge acquired through experience or education (*Concise Oxford Dictionary*, 2005:641). In this study knowledge refers to psychiatric nurses' knowledge of the causes, recognition, prevention and management of aggression of psychiatric patients.

A **skill** is the ability to perform something well (*Concise Oxford Dictionary*, 2005:1099). For the purpose of the study, it is the awareness of the skills professional nurses use to manage aggressive patients, for example, communication skills and de-escalating skills.

Research methodology

A quantitative, descriptive survey design was used to conduct this study as the researcher had no intention of establishing a cause-effect relationship (Brink, Van der Walt & Van Rensburg, 2012:124) but wanted to determine the knowledge and skills of professional nurses in the management of an aggressive psychiatric patient

Research site

The study was conducted in one of the four psychiatric hospitals in the Western Cape. The selected hospital has a bed capacity of approximate 740, which makes it the largest psychiatric institution in the Western Cape, to which one-third of the population of mentally ill patients in the Western Cape are referred. The hospital serves 4 areas that have a high rate of unemployment, gangsterism, substance abuse and domestic violence.

Population and sample

The population for the study were all 119 professional nurses working in direct care at the selected hospital. An all-inclusive sampling technique was used to select professional nurses. From this total target population, 70 questionnaires were distributed as some participants were on annual leave, sick leave, study leave, resigned from the service or others were not interested in taking part in the study. To ensure that the response rate was increased, given that 49 nurses were unavailable for reasons cited above, the researcher visited both the night and day staff to inform them about the study and encouraged them to participate.

Research instrument

The questionnaire was developed by the researcher with the assistance of the research supervisor and the statistician using literature to guide the development thereof. It consisted of 31 close ended questions. The questionnaire consisted of three sections, namely, biographical information, knowledge of professional nurses, and skills and training of professional nurses in managing aggression. The participant either chose Yes/No/Don't Know from answers provided and the answers were graded as correct or incorrect. Face validity was established by consulting the experts in psychiatric nursing science, the supervisor and statistician to provide feedback regarding the validity of the questionnaire. In order to maintain test-retest reliability of the questionnaire, it was pre-tested in ten participants and as no changes were made to the questionnaire, and their data were included in the final sample. Internal consistency was tested and the overall Cronbach's Alpha for the instrument was .721.

Data collection and analysis:

Data collection commenced from December 2014 to January 2015. Prior to data collection the researcher personally visited each ward to check the duty roster and made the list of all the potential participants. The purpose of the study was explained, how participants were selected and the rights of the participant and possible risk from participating in the study. An informed consent, information sheet and questionnaire were handed over to the participant with two empty envelopes. The researcher repeated the same process with participants on both day and night shift. Data was generated by means of participants completing the 31 item Likert scale self-administered structured questionnaire. After this, data collection was completed and entered into SPSS Version 22. The knowledge questions were grouped together into subcategories such as causes of aggression (internal, external and situational), signs of aggression, prevention and management of aggression. For each knowledge question, subcategories items were calculated and scores were created. The total knowledge score was calculated out of 37. Participants were classified into two groups based on how long they have been a nurse (< 7 years and 7 years and above) to test whether experience would contribute to changes in knowledge and skills. Associations with demographic variables and overall knowledge was tested using Mann Whitney U for Independent Samples. The significance level for statistical test was at $p < 0.05$.

Ethics

Ethics clearance was obtained from both the Research Ethics Committee of a University in the Western Cape and the participating hospital Ethics Committee as well

as permission from the Department of Health in the Western Cape. Informed consent was obtained and participants were informed that participation was voluntary. Participant information sheets and consent letters were disseminated to all the participants explaining the purpose, ethical considerations and guidelines for participation to the study. The researcher ensured that names of participants involved in the study are not linked to the data to ensure anonymity, and also the data was locked in a safe place to maintain confidentiality.

Findings

The researcher distributed questionnaires to 70 participants with the response rate of 77% (n=54). The response rate was reduced by two questionnaires that were incomplete and discarded to 74% (n=52). The sample in this study consisted of professional nurses, n=52 (100%), between the ages of 28 and 59 years, with an average age of 39.5 years (sd 7.5). Nearly three quarters of participants 38(73.1%) were in the age group of 36 years and older, and n=14 (26.9%) were in the age group of 35 years and less. Just over half of the participants n=29 (55.8%) were females and n=23 (44.2%) were males. Of the participants, n=20 (38.5%) had a nursing diploma, n=8 (15.4%) had nursing degree, n=22 (42.3%) had advanced nursing psychiatry and n=2 (3.8%) had master's degrees. All the participants have been exposed to verbal aggression n=52 (100%), followed by physical aggression (n=46; 88.5%) and only n=16 (30, 8%) had been exposed to sexual aggression.

Knowledge of aggression

Knowledge of aggression was measured based on agreement by participants on factors causing aggression (internal, external and situational factors), recognising signs and symptoms, prevention and management strategies (Table 1). The overall score of knowledge out of 37 was calculated with a high mean total score of 32.6 (88.1%). All agreements on factors causing aggression were high (>80%) with the highest agreement reached for management, both acute (97.8%) and management strategies (89.4%).

Table 1: Knowledge Factor Agreements

	>7 (n=41)	0-7 (n=11)	Total (n=52)		
	Mean (sd) [% agreement]	Mean (sd) [% agreement]	Mean (sd) [% agreement]	Test	p value
Acute Management (7)	6.8 (±0.7) [97.2%]	7(±0) [100%]	6.8(±0.6) [97.8%]	U=1.2	p=.228
Management Strategies (7)	3.6 (±0.7) [89.0%]	3.6(±0.5) [90.9%]	3.6(±0.6) [89.4%]	U=0.1	p=.936
Prevention (7)	6.1 (±1) [86.8%]	6.8(±0.4) [97.4%]	6.2(±1) [89.0%]	U=2.5	p=.014*
Internal Factors (6)	5 (±0.9) [82.5%]	5.7(±0.6) [95.5%]	5.1(v 0.9) [85.3%]	U=2.8	p=.005*
Signs & symptoms (4)	3.3 (±0.6) [83.5%]	3.6(±0.5) [90.9%]	3.4(±0.6) [85.1%]	U=1.4	p=.158
Situation (3)	2.5 (±0.7) [84.6%]	2.5(±0.8) [84.4%]	2.5(±0.8) [84.6%]	U=0.2	p=.818
External Factors (6)	4.8 (±.4) [79.7%]	5.3(±1) [87.9%]	4.9(sd1.3) [81.5%]	U=1.0	p=.302
CAUSES (15)	12.3 (± 2.3) [81.8%]	13.5 (±1.3) [90.3%]	12.5 (±2.1) [83.6%]	U=1.6	p=.112
KNOWLEDGE (37)	32 (±3.4) [86.6%]	34.6 (±1.7) [93.6%]	32.6 (±3.3) [88.1%]	U=2.3	p=.022*

In comparing different levels of overall knowledge between how long the nurses have been nursing, there was a significant difference with the newer nurse (< 7 years) having higher knowledge scores (34.8 sd 1.7) as compared with participants in nursing for longer (> 7 years) (32.0 sd 3.4) (U = 2.3, p=.022). This knowledge difference was due to higher knowledge in the newer nurses in two factors: prevention (6.8 sd 0.4 vs 6.1 sd 1.0, (U = 2.3, p=.022) and internal factors (5.7 sd 0.6 vs 5.0 sd 0.9, U = 2.3, p=.022). Table 2 provides the individual item ratings.

Table 2: Individual agreements on aggression factors

	>7 (n=41)	0 – 7 (n=11)	Total (n=52)
External Factors			
Ward atmosphere can contribute to aggression	39(95.1%)	11(100%)	50(96.2%)
Overcrowding contributes to patient aggression	37(90.2%)	10(90.9%)	47(90.4%)
Unfamiliar environment contributes to patient aggression	33(80.5%)	10(90.9%)	43(82.7%)
Long waiting times contribute to patient aggression	31(75.6%)	9(81.8%)	40(76.9%)
Physical ward environment causes aggression	28(68.3%)	9(81.8%)	37(71.2%)
Lack of privacy contributes to patient aggression	28(68.3%)	9(81.8%)	37(71.2%)
Internal Factors			
Psychiatric diagnosis causes aggression	41 (100%)	11 (100%)	52 (100%)
Previous history of aggression indicates that patient is more likely to be aggressive	37(90.2)	11(100)	48(92.3)
Intoxication or withdrawals indicate that patient is more likely to be aggressive	38(92.7)	11(100)	49(94.2)
Signs of illness	39(95.1)	11(100)	50(96.2)
Involuntary admission	27(65.9)	10(90.9)	37(71.2)
Aggressive outburst	21(51.2)	9(81.8)	30(57.7)
Situation			
Lack of communication can lead to aggression	39(95.1)	10(90.9)	49(94.2)
Being provoked causes aggression	36(87.8)	10(90.9)	46(88.5)
Strained relationships cause aggression	29(70.7)	8(72.7)	37(71.2)
Prevention			
Identify stressors to prevent aggression	40(97.6)	11(100)	51(98.1)
Listening to complaints can prevent patient aggression	39(95.1)	11(100)	50(96.2)
Be able to assess the situation	38(92.7)	11(100)	49(94.2)
Ward programme can prevent patient aggression	36(87.8)	11(100)	47(90.4)

Avoid escalation of aggression	35(85.4)	11(100)	46(88.5)
Physical and social environment that is therapeutic	33(80.5)	11(100)	44(84.6)
Avoid unreasonable demands to prevent aggression	28(68.3)	9(81.8)	37(71.2)
Signs & symptoms			
Loud and agitated	40(97.6)	11(100)	51(98.1)
Restless and argumentative	39(95.1)	11(100)	50(96.2)
Demanding and difficult	39(95.1)	11(100)	50(96.2)
Pupillary dilation	19(46.3)	7(63.6)	26(50)
Acute Management			
Call for help and assess for safety	41(100)	11(100)	52(100)
Maintain patient self-esteem and dignity	41(100)	11(100)	52(100)
Stay calm	40(97.6)	11(100)	51(98.1)
Talk in calm voice	40(97.6)	11(100)	51(98.1)
Remove audience or patient	40(97.6)	11(100)	51(98.1)
Don't argue with patient	39(95.1)	11(100)	50(96.2)
Use Verbal and nonverbal communication	38(92.7)	11(100)	49(94.2)
Management Strategies			
Administer prescribed medication	41(100)	11(100)	52(100)
Use seclusion	39(95.1)	11(100)	50(96.2)
Negotiate with patient involved	39(95.1)	10(90.9)	49(94.2)
Use physical restraints	27(65.9)	8(72.7)	35(67.3)

Skills

Nearly half of the participants (22, 42.3%) reported that they found it difficult to deal with aggression, though only 10 (19.2%) reported finding it difficult to do an individual aggression assessment and 44 (84.6%) reported that they were able to use their team skills to restrain patients. When asked to rate their awareness and perception of their ability and use of key skills, the participants rated their skills highly with ratings of above 80% of the participants. There were no significant differences between the two groups (being a nurse for more than 7 years or less), though the ratings again were higher for most skills for newer nurses, except for breakaway techniques (63.6% vs 80.5%)(Table 3).

Table 3: Skill ratings

Skills	>7 (n=41)	0 – 7 (n=11)	Total (n=52)
Able to use verbal and non-verbal skills	41(100%)	11(100%)	52(100%)
Policies that regulate use of physical restraints and seclusion	40(97.6%)	11(100%)	51(98.1%)
When to use physical restraints or seclusion	40(97.6%)	11(100%)	51(98.1%)
Procedure to follow when reporting and documenting incident of aggression	40(97.6%)	11(100%)	51(98.1%)
Different options when confronted by aggressive patient	37(90.2%)	10(90.9%)	47(90.4%)
Able to use team skills to restrain patients	33(80.5%)	11(100%)	44(84.6%)
Using assessment skills to identify high risk patients	33(80.5%)	9(81.8%)	42(80.8%)
Breakaway techniques used when handling aggressive patient	33(80.5%)	7(63.6%)	40(76.9%)

Though the participants demonstrated reasonable knowledge and skills, in-service training appeared to be poor with only 21 (40.4%) reporting that they had any training in the last month and only a third (n=19; 36.5%) stating that the training had met their needs.

Discussion

Findings in the current study revealed that all participants agreed to being exposed mostly to verbal aggression and just below half of participants were exposed to physical and sexual aggression. These findings are consistent with a study conducted by Jonker et al. (2008:495) on perceptions of mental health nurses on patient aggression in clinical psychiatry in six closed and semi-closed in-patient wards in a hospital in Netherlands. The findings revealed that 60% of nurses reported being confronted with non-threatening verbal aggression and (80%) of the nurses reported to never or rarely being confronted with sexual aggression.

The findings of this study indicate that most of the participants agreed that the ward atmosphere contributed to patient aggression. This included overcrowding, physical and social environment, unfamiliar environment and lack of privacy. Similar results have been reported by Van Wijk (2006:42) in which patients reported that living conditions, rigid limit settings and lack of privacy contributed to the cause of aggression, while Dawood's (2013:172) findings alluded to nurses' perception that a restrictive physical environment was a contributory factor to patient violence.

The results showed that all the participants in this study agreed that a psychiatric diagnosis plays a role in the cause of patient aggression. This finding is consistent with Duxbury (2002:326) who asserted that a variety of mental illnesses have been associated with incidences of aggression in the health care settings with illnesses such as mania and schizophrenia being the most commonly reported. Involuntary admission and aggressive outburst were perceived to be contributing less to aggression by the participants who had less years of experience.

Findings of the association, in comparing the overall knowledge scores and their years of experience working in the current unit, revealed that staff with less years of experience in the unit have higher knowledge scores compared with their colleagues who had more years of experience in the same unit. Ilkiw-Lavalle's (2006:167) findings alluded to the younger staff with less experience of working in mental health perceived themselves as confident as their older and more experienced counterparts. Ilkiw-Lavalle (2006:167) cited possible reasons for this, asserting that it may have been because the less experienced staff had received aggression minimisation training as part of their orientation. Ilkiw-Lavalle (2006:167) added that staff mix also plays a role in making less experience staff to be more confident in dealing with aggression. However Jonker et al. (2008:498) found that younger and less experienced nurses appeared to be more vulnerable to patient aggression and were unable to cope with aggression compared with experienced nurses.

In the current study there was no significant difference on overall knowledge and age groups.

Skills

The findings of this study revealed that all participants reported to be able to use verbal and non-verbal skills when handling aggressive patients while most of the participants indicated that they know when to use physical restraints or seclusion and team skills when dealing with patient aggression. Less than half of the participants reported having difficulties in dealing with aggression and using assessment skills to identify high risk patients for aggression. These findings are consistent with the results obtained by Ilkiw-Lavalle (2006:167) where the majority of staff agreed that using the verbal communication and interpersonal skills learnt from an aggression minimisation programme were the key skills to manage patient aggression. Ilkiw-Lavalle (2006:167) also reported that the training had increased their knowledge and skills in managing aggression.

Furthermore, findings in the current study revealed that all participants were aware of the procedures to follow when reporting and documenting incidents of aggression. Similar findings were reported by Peek-Asa, Casteel, Allareddy, Nocera, Goldmacher, OHagan, Blando, Valiante, Gillen and Harrison (2009:172) who investigated workplace violence prevention programmes. Participants from hospitals in California reported an awareness of having written policies for communicating patient risk of violence while fewer than half of the participants in hospitals in New Jersey reported an awareness of such policies.

The findings of the study showed that less than half of the participants reported to have received training on management of aggression with a similar number of the participants believed that training has met their needs in understanding and managing aggression. Findings from a study by Bock (2011:103) revealed that from the total population of n=162 participants only n=47(52%) of participants received training relating to management of aggression as compared with the current study findings that showed only 40.4% of participants had received training.

This finding of the current study is similar to Tema et al. (2011:920). These authors found that nurses felt that they do not get enough training to gain more knowledge and be skilled to handle forensic patients. However, Letlape, Koen, Coetzee and Koen (2014:5) asserted that psychiatric nurses who have opportunity to attend in-service training and being empowered with latest psychiatric knowledge and skills are more effective when dealing with psychiatric patients.

Conclusion

Professional nurses with less years of experience were more knowledgeable about possible causes and management of aggression. The study's findings revealed that the majority of the participants had not received training in the management of patient aggression although their levels of knowledge and skills were high.

Recommendations

Training: On-going training pertaining to aggression management should be provided on a regular basis. Training can be also done in the form of in-service training at ward level. Training should focus on improving staff ability to manage aggression, communication skills and incident reporting.

Nurses should be sent for short courses as this will keep them up to date with the latest techniques in aggression management.

Future research: Qualitative study should be conducted on this topic to get more rich data on knowledge and skills of professional nurses in managing aggressive patients.

A follow-up study can be conducted in the same institution and can include all categories of nurses and other disciplines as they also work with these patients with difficult behaviours.

Limitations of the study

This study was only localised in one psychiatric hospital, therefore findings cannot be generalised to other psychiatric institutions. The study did not include all categories of nurses and other disciplines.

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