

Assaults among Nurses Attending Aggressive Psychiatric Patients at Mathari National Teaching and Referral Hospital, Nairobi City County, Kenya

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Abstract

Purpose: Assaults among the Nurses attending to aggressive psychiatric patients have been a longstanding issue in the psychiatric facilities. The study aimed to assess the assaults among Nurses attending the aggressive psychiatric patients at MNTRH. The specific objectives were to determine the nurse's factors associated with assault by aggressive psychiatric patients, establish the health facility factors associated with assaults among the nurses attending aggressive psychiatric patients, and identify the psychiatric patients' factors themselves associated with the nurses' assault at MNTRH.

Methods: The study used a cross-sectional research design to conduct the study, while data collection tool used was a structured questionnaire and interview. Data was analyzed using descriptive and inferential statistics.

Results: Statistical analyses revealed significant correlations among various factors contributing to assaults among nurses at MNTRH. Notably, a moderate positive relationship was observed between Nurse's Factors Associated with Assault and the actual occurrences of assaults. Similarly, Health Facility Factors Associated with Assault and Aggressive Psychiatric Patients' Factors Associated with Assaults demonstrated significant, albeit varying, relationships with assaults. The overall regression model was statistically significant indicating that the predictors collectively contribute significantly to explaining the variability in assaults. Notably, Nurse's Factors Associated with Assault Health Facility Factors Associated with Aggressive Psychiatric Patients' Factors Associated with Assaults were all significant predictors.

Conclusion: The study emphasizes the multifaceted nature of the issue, urging targeted interventions addressing both individual nurse-related factors and institutional conditions to enhance safety in psychiatric settings at MNTRH.

Keywords: Nurse's factors, Health facility factors, Aggressive psychiatric patients' factors, Assaults among Nurses

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1.0 Introduction

Assault, while a staff is on duty, may include either physical or verbal attacks by psychiatric patients. In recent years, there has been growing concern about the rising number of assaults among nurses caring for aggressive psychiatric patients in hospital settings around the world. This concerning tendency is not limited to inpatient psychiatry units, but also to general medical facilities, revealing a major issue that requires attention and response. According to European statistics, between 24% and 80% of psychiatric health personnel face aggressiveness from psychiatric patients at least once throughout their careers. Such aggressiveness presents itself in a variety of ways, with verbal attacks and threats being particularly common, with rates ranging from 46% to 78.6% reported (Caruso et al., 2021). These troubling statistics highlight the pervasiveness of the problem and its potential influence on the well-being of healthcare providers.

In the United Kingdom, the situation is also troubling, with roughly 51% of psychiatric patients engaging in verbal aggressiveness regularly. This troubling trend is emphasized by data from the National Health System, which stated that globally, approximately 500,000 staff employees, taking care of psychiatric patients were assaulted in 2016. These episodes not only have an impact on healthcare personnel' physical and psychological wellbeing, but they also threaten the quality of patient treatment delivered in psychiatric settings (Caruso et al., 2021).

Seventy-six percent of nurses working in psychiatric institutions in Italy have reported both verbal and physical hostility by their patients. This shows that Italy is not immune to this problem. The experience of nurses in Germany in the year 2020 was equally disturbing, with one hundred percent of them coming across verbal and shouting violence from psychiatric patients, and a shocking seventy-nine-point-five percent of them coming across physical assaults from these patients. According to Caruso et al. (2021), these findings highlight the important need for comprehensive research and intervention techniques to address the safety and well-being of healthcare personnel working in psychiatric care settings.

According to research conducted in Australia, 58% of healthcare personnel, with a large number being nurses, have reported having experienced verbal assaults from patients undergoing treatment for psychiatric conditions. Not only can events of this nature provide a physical danger, but they also have a significant bearing on the mental and emotional well-being of the healthcare professionals involved. Notably, female healthcare employees, especially nurses, appear to endure a greater burden than their male counterparts. Eighty-two percent of female healthcare workers report experiencing verbal assault more frequently than their male colleagues. These findings show gender inequalities in the experience of workplace violence, which may necessitate targeted interventions and support systems (Adeniyi & Puzi, 2021). These findings emphasize gender disparities in the experience of workplace violence.

In a similar vein, the situation is particularly concerning in Brazil, where one hundred percent of female healthcare personnel, including registered nurses, have reported experiencing verbal assaults at the hands of psychiatric patients. This frightening number highlights the need for immediate actions to ensure the safety and psychological well-being of healthcare personnel working in psychiatric settings (Adeniyi & Puzi, 2021).

According to research conducted in South Africa, 66.7% of female nurses are more likely to experience aggressiveness and violence from psychiatric patients compared to their male counterparts in the nursing profession. This gender-based disparity underscores the necessity of considering gender-specific characteristics when establishing interventions and policies to reduce workplace violence in psychiatric care settings (Adeniyi & Puzi, 2021).

The handling of emergencies in psychiatric facilities, especially those featuring aggression, violence, and acute psychosis, requires a diverse strategy to safeguard the safety of both the healthcare staff and the patients. This is particularly important in situations where the patients are aggressive or violent. Several measures, such as those involving restraint, solitary confinement, and approaches for de-escalation, among others, have been mulled over as potential responses to these difficult scenarios. On the other hand, the frequency with which such crises occur in mental institutions highlights the necessity of developing efficient intervention strategies that can be adapted to the specific conditions of each healthcare facility (Ochieng, 2018).

Studies that were carried out in Kenya, including research that was carried out at the country's largest tertiary hospital, have shown that the prevalence of workplace violence among healthcare professionals, such as nurses, is increasing. A frightening 81.7% of nurses working in emergency departments have reported having been the victim of some kind of attack while on the job. This poses an increasing threat of workplace violence in these departments. In addition, during a single year, 73.2% of the nurses who work in this particular department have been subjected to some form of workplace violence. According to Kibunja et al, (2021), these findings highlight the crucial need for comprehensive solutions to control and minimize workplace violence in healthcare settings.

1.1 Problem Statement

There is growing concern about the safety and welfare of nurses working with aggressive mental patients at Mathari National Teaching and Referral Hospital (MNTRH). In the hospital's psychiatric care settings, there has been a discernible increase in the frequency of violent mental patients attacking nurses over time (Caruso et al., 2021; Adeniyi&Puzi, 2021). The physical, psychological, and emotional well-being of the nurses is seriously jeopardized by these assaults, which involve a variety of aggressive behaviors including threats, physical violence, and verbal abuse (Chiba & Subramaney, 2015).

The attacks put nurses' jobs and safety in danger, but they also raise serious concerns about the standard of care given to people with mental illnesses. The issue is made worse by the possibility of long-term psychological stress suffered by healthcare professionals, which can result in burnout, poor work output, and employee attrition (Kibunja et al, (2021).

Previous research in the field has repeatedly shown that assaults, which include threats, physical violence, and verbal abuse, are becoming more common and specifically target nurses (Caruso et al., 2021; Adeniyi&Puzi, 2021). some point in their careers. In addition, the gender gap in the experience of violence at work has become a significant issue, with female nurses being targeted more frequently for verbal and physical abuse (Adeniyi &Puzi, 2021). Research from Australia, Brazil, and South Africa has further demonstrated how widespread the issue is and how urgent it is to look into the causes of these attacks (Chiba &Subramaney, 2015; Kibunja et al., 2021).

Although earlier studies have brought attention to the problem's worldwide scope, they have not sufficiently examined the variables linked to assaults at MNTRH or offered context-specific remedies. Comprehending these variables, encompassing the traits of nurses, issues pertaining to health facilities, and characteristics of mental patients, is imperative in customizing efficacious remedies to tackle the matter within MNTRH. Therefore, the purpose of this study was to close this gap by looking into the underlying factors that lead to aggressive mental patients at MNTRH attacking nurses.

1.2 Study Objectives

- i. To assess nurses' factors associated with assault by aggressive psychiatric patients at MNTRH.
- ii. To establish the health facility factors associated with assaults among Nurses by the aggressive psychiatric patients at MNTRH.
- iii. To identify the aggressive psychiatric patients' factors associated with assaults among Nurses at MNTRH.

2.0 Literature Review

2.1 Theoretical Review

The Precede-Proceed paradigm provides a universal framework for identifying health needs, planning and carrying out health promotion programs, and analyzing treatments. This approach forms the basis of this study. The "Proceed" phase of the approach consists of four critical stages of evaluation: implementation, process, impact, and results. According to the concept, medical professionals are essential in putting behavioral therapies designed for violent mental patients into practice in a hospital context.

The Precede-Proceed paradigm provides an organized method for comprehending the complex nature of healthcare problems, such as aggressive psychiatric patients attacking nurses and workplace violence. Using this paradigm, the research attempts to create evidence-based interventions, measure their efficacy, and thoroughly investigate the variables influencing attacks and violence in the healthcare setting. This approach makes it possible to investigate the issue methodically and comprehensively, guaranteeing that therapies are sensitive to the particular requirements of mental patients as well as healthcare professionals and are supported by empirical facts.

Furthermore, the Precede-Proceed paradigm is consistent with the overarching goals of improving healthcare facilities' quality of treatment and fostering public health. It emphasizes how crucial it is to include healthcare professionals in the planning and execution of treatments, highlighting their proactive role in bringing about favorable behavioral results.

2.2 Nurses' factors associated with assault by aggressive psychiatric patients.

Pekurinen et al. (2017) looked into the connection between nurse wellbeing and patient violence in Finland. There were notable differences in reported patient hostility between nursing specializations based on their sample of 5288 nurses. While emergency nurses experienced greater physical and verbal aggressiveness than their mental counterparts, psychiatric nurses experienced a greater degree of aggression than medical and surgical nurses. The study also found differences in how patient hostility affects nurses' well-being. Medical and surgical nurses experienced higher levels of psychological distress and problems with

sleep, while psychiatric nurses reported lower levels of self-rated health and diminished work performance. These results highlight the need for interventions and assistance that are specifically designed to address the unique difficulties that nurses encounter in various healthcare settings.

A qualitative study was conducted by Stevenson et al. (2015) to investigate the experiences of Canadian psychiatric nurses with patient aggression. This study, which involved 17 semi-structured interviews with a targeted sample of 12 licensed nurses who self-reported encountering patient aggression within acute care inpatient psychiatry, was guided by an interpretative descriptive design. The analysis methods employed were constant comparison and thematic analysis. The overall framework of the data interpretation was also based on a problem, needs, and practice analysis. An analysis was conducted on thirty-three distinct instances of patient violence within the nursing sample. The experience of verbal, emotional, and physical abuse was described by nurses. Patient aggression was viewed by many as "part of the job." When nursing after a serious violent occurrence, nurses frequently grappled with the conflicting roles of self-care and obligation to care. The perceptions and reactions of nurse participants to patient aggression were also impacted by issues of power, control, and stigma. However, the studies demonstrate strategies aimed at lowering workplace patient violence and lowering obstacles to reporting violent experiences.

2.3 Health facility factors associated with assaults among nurses

Weltens et al. (2021) investigated staff and ward factors linked with aggressive psychiatric patient assaults on nurses in the Netherlands. A prospective naturalistic sampling of experiences technique (ESM) investigation was used in this study. During approximately 7 consecutive days, 29 nurses responded to beeps created by an app with questions about their subjective feelings, the environment, location, interaction with patients and colleagues, and whether an incident occurred. The presence of a nurse with a patient was related to an increased incidence of violence (OR=2.26, 95% CI 0.99 to 5.15, $p=0.05$). On the one hand, there was no significant relationship between conversing with the patient and setting a boundary, or physical absence of the nurse, and violence. Aggression was more common among more experienced nurses (OR=3.5, 95% CI 1.32 to 8.26, $p=0.01$). The age and gender of the nurse had little effect on aggression development. Excessive bed capacity was linked to an increased risk of aggressiveness (OR=5.36, 95% CI 1.69 to 16.99, $p=0.004$). When analyzing positive conditions on the ward or positive affect of the nurse, there was no significant correlation, while negative affect of the nurses indicated a trend for an association with reduced aggression. Future research could look into how ward overcrowding and resource constraints contribute to aggression and how to address these challenges.

Schlup, Gehri, and Simon (2021) used cross-sectional survey data from the MatchRN Psychiatry project, which involved 1128 nurses from 115 units and 13 psychiatric facilities. The purpose of the study was to evaluate how much violence—including violence against property, verbal abuse, physical abuse, physical sexual abuse, and verbal abuse—nurses had experienced in the 30 days before the survey. For every category of violence and each item, descriptive statistics were computed, such as frequencies and percentages. We used generalized linear mixed models to calculate odds ratios and associated 95% confidence intervals. According to the survey, a sizable percentage of nurse respondents said they had experienced verbal abuse (73%), violence against property (63%), verbal sexual abuse (40%), bodily violence (28%), and physical sexual violence (14%). Also, almost thirty percent of nurses

reported having been the victim of serious assaults at some point in their careers. Crucially, every attribute of a nurse was linked to violent episodes among psychiatric inpatients. A notable association was found between a history of sexual assault and an increased likelihood of violence (OR 4.53, 95%-CI 2.19–9.34; $P = 0.00$), as well as between nurses with less than three years of experience in the field (OR 3.70, 95%-CI 1.95–7.02; $P = 0.00$). These results imply that routinely used tactics, such as alarm devices and anger management classes, would not be able to completely prevent patient violence against psychiatric nurses. As a result, the study emphasizes how important it is for mental health facilities to have proactive safety protocols and violence prevention techniques.

2.4 Aggressive psychiatric patients Factors associated with assaults among nurses

Caruso et al. (2021) conducted a literature analysis on aggressive episodes committed by adult patients hospitalized in mental hospital units in Europe, and the results were reviewed by other professionals in the field. According to the findings, despite the fact that mental health disorders are a significant factor in the risk of aggression, there are many other factors, such as substance abuse, a history of physically aggressive behavior in the past, childhood abuse, social and cultural patterns, relational factors, and contextual variables that can increase the risk of overtly aggressive behavior in the general hospital. This analysis underlines the necessity of undertaking programs aimed at improving hospital understanding, prevention, and management of violence.

Weltens et al. looked into the elements that lead to the emergence of aggressiveness in psychiatric units in their study from 2021. After a thorough search of Pubmed and Embase, they found 146 pertinent studies to include in their analysis. There was a large range in the incidence of aggressive conduct in mental units, from 8% to 76%. These variables were divided into groups based on the patients, personnel, and ward. A diagnosis of a psychotic condition or bipolar disorder, substance misuse, a history of aggressiveness in the past, and younger age were risk factors for the patient. Male gender, credentials or temporary work status, job strain, job or management unhappiness, burnout, and the caliber of staff-patient interactions were all considered staff risk factors. A cohesive team, strong leadership, and participation in treatment choices were protective factors for the staff. Higher bed occupancy, congested ward areas, walking rounds, a dangerous or constrictive atmosphere, a lack of daily organization, smoking regulations, and insufficient privacy were among the risk factors associated with wards. However, the study did not concentrate more on the early phases of violence, such as agitation, and on elements like ward and staff characteristics that are more effective in preventing aggression.

3.0 Methodology

The study adopted a descriptive cross-sectional design, employing a quantitative approach to investigate incidents of assaults among nurses attending to aggressive psychiatric patients at MNTRH. The research was conducted at Mathari National Teaching and Referral Hospital, situated in Nairobi City County, approximately 4 kilometers north of the city center, along Thika Superhighway refer to Appendix IV. The study population consisted of the 280 nurses employed at MNTRH. For the research, one-third of these nurses, specifically those working in the admitting wards, which include both male and female wards, were selected as the respondents. The sample size was 102 nurses. The study employed a stratified random sampling method.

The inclusion criteria consisted of nurses working in the admitting wards, encompassing both male and female wards at MNTRH, who willingly agreed to participate in the study. Nurses who met the inclusion criteria but were unwilling to participate in the research were excluded. Data collection involved the distribution of structured self-administered questionnaires to 102 nurses working in admitting wards at MNTRH. Before data collection, informed consent was sought from each respondent without any form of coercion. Quantitative data were coded, cleaned, and analyzed using SPSS version 26. Data was analyzed using descriptive and inferential statistics.

4.0 Results and Discussion

4.1 Nurses Factors Associated with Assaults by Aggressive Psychiatric Patients at Mntrh

Table 1: The Nurse's Factors Associated with Assaults by Aggressive Psychiatric Patients

Descriptive Statistics					
	N	Min	Max	Mean	Std. Dev.
Female nurses are the most frequently assaulted by the aggressive psychiatric patients at MNTRH	94	1.00	4.00	2.2	1.02
The frequency of aggressive assaults is high on female nurses due attitude of patients toward them	94	2.00	5.00	3.5	0.83
Aged nurses above the age of 57 years are most assaulted by the aggressive psychiatric patients at MNTRH	94	1.00	5.00	4.0	0.94
Nurses above the age of 57 are more frequently assaulted due to their slow response	94	1.00	5.00	2.8	1.16
Nurses with long experience in attending to aggressive psychiatric patients are less assaulted by aggressive psychiatric patients at MNTRH	94	1.00	4.00	2.2	1.19
Highly experienced nurses understand how to handle psychiatric patients therefore experience few assaults	94	1.00	5.00	2.2	1.24
The nurses who use harsh language to the psychiatric patients are most assaulted at MNTRH.	94	1.00	5.00	2.2	1.25
The nurses who are firm on decision making are most assaulted by the psychiatric patients at MNTRH.	94	1.00	5.00	3.8	1.07

Gender has a mean of almost average at 2.2. this means that even though it may not be only contributing factor to nurses' assault by psychiatric aggressive patients, it has a relationship

with the assaults experienced. The attitude of patients towards female nurses scored above average 2.8 as an important factor contributing to assaults of nurses.

The descriptive statistics in Table 1 provide valuable insights into the perceptions surrounding assaults on nurses by aggressive psychiatric patients at MNTRH. Old nurses experience a higher incidence of assaults from violent psychiatric patients, as evidenced by the average rating of 3.5 on the Likert scale. The higher average rating indicates a greater frequency of aggressive episodes specifically directed towards the nurses above the age of 55 in comparison to their younger colleagues. These factors prompt crucial deliberations on the management of workplace safety and the execution of strategies to safeguard the welfare of aged healthcare practitioners in psychiatric settings. The nurses have also agreed that this is largely contributed to by their physical ability which has reduced with age.

A surprising result emerges regarding the age factor. Nurses above the age of 55 years are perceived to be the most assaulted by aggressive psychiatric patients (mean rating of 4.0), physical ability problems of nurses above the age of 55 years are also thought to be a risk factor (mean rating of 2.8). This finding challenges the common belief that younger individuals are more susceptible to assaults due to their physical vulnerability.

Experience and training seem to play a role in mitigating assault risks. Nurses with long experience attending to aggressive psychiatric patients did not fall either way, with a mean rating of 2.2. (almost average) could not be easily interpreted as a high or low-risk factor. Similarly, high levels of training in handling such patients also had almost neutral scores with the same mean rating of 2.2. This indicates that experience and training might equip nurses with valuable skills to manage aggressive behavior effectively but may not reduce to a larger extent their exposure to the risk of assault.

The respondents' opinions suggest a link between communication style and assault risk. The use of derogatory language on psychiatric patients by nurses was also not found to contribute to a higher risk of assaults (mean rating of 2.2). However, Nurses who are firm on decision-making are perceived to be more assaulted (mean rating of 3.8), which contradicts the expectation that assertiveness could deter aggressive behavior.

The findings shed light on the multifaceted nature of factors associated with assaults on nurses by aggressive psychiatric patients. These results align with a study by Ridenour et al. (2015), which also highlighted that nurses working in psychiatric wards face an increased risk of workplace violence. According to Ridenour's study, psychiatric nurses experienced physical assaults, threats of physical assault, and verbal assaults at least once during a typical workweek. This aggressive behavior poses a significant challenge for modern acute psychiatric services, not only impacting the well-being of patients and staff but also imposing financial burdens on service providers.

4.2 Health Facility Factors Associated with Assaults among Nurses Attending to Aggressive Psychiatric Patients at MNTRH

Table 2: Health Facility Factors Associated with Assaults among Nurses

Descriptive Statistics					
	N	Min	Max	Mean	Std. Dev.
When the nurses are adequately distributed in the wards, they are less assaulted by the aggressive psychiatric patients at MNTRH.	82	1.00	4.00	2.6	.78
With the health facility continuously training nurses on management of aggressive psychiatric patients, the nurses are less assaulted by aggressive psychiatric patients	82	1.00	4.00	2.7	.66
When the relevant medications are readily available at the medical facility, there is less attacks on the nurses by the aggressive psychiatric patients at MNTRH	82	1.00	4.00	3.5	.69
When there are adequate structures for management of aggressive psychiatric patients at the health facility, the nurses are less assaulted by the aggressive psychiatric patients	82	1.00	3.00	2.6	.70
The chemical restraints in the management of aggressive psychiatric patients is effective in the assaults of nurses by the aggressive psychiatric patients at MNTRH	82	1.00	4.00	2.2	.89
The application of seclusion in the management of aggressive psychiatric patients is effective in the assaults of nurses by the aggressive psychiatric patients at MNTRH	82	1.00	4.00	2.9	.85
De-escalation in the management of aggressive psychiatric patients is effective in the assaults of nurses by the aggressive psychiatric patients at MNTRH.	82	1.00	4.00	2.5	1.06

According to Table 2, the majority of respondents agreed that having an adequate distribution of nurses in the wards (mean = 2.6) and providing continuous training on managing aggressive psychiatric patients (mean = 2.7) can lead to fewer assaults on nurses. This highlights the importance of maintaining appropriate nurse-to-patient ratios and providing ongoing education to enhance nurse preparedness in dealing with challenging situations.

Respondents also emphasized the significance of medication availability, with a majority agreeing that readily accessible relevant medications at the medical facility (mean = 3.5) contribute to a reduction in assaults on nurses. This underscores the importance of timely access to appropriate medications to effectively manage patient behaviors. Furthermore, healthcare professionals perceived that health facilities with adequate structures for managing aggressive

psychiatric patients (mean = 2.6) experience fewer assaults on nurses. This suggests that well-designed facilities and protocols can contribute to creating a safer working environment for nursing staff.

Regarding specific management techniques, respondents showed moderate agreement on the effectiveness of chemical restraints (mean = 2.2), suggesting that while they may help manage some situations, their universal efficacy is not strongly perceived. On the other hand, the respondents generally agreed that the application of seclusion (mean = 2.9) and de-escalation techniques (mean = 2.5) can lead to fewer assaults on nurses. This highlights the importance of appropriate use of seclusion and the value of training nurses in de-escalation skills to prevent and manage potential violent incidents.

The findings indicate that healthcare professionals perceive several health facility factors to be associated with the occurrence of assaults on nurses attending to aggressive psychiatric patients. This finding agrees with findings by Olashore, Akanni, and Ogundipe (2018) who posited that ensuring adequate nurse distribution, continuous training, availability of relevant medications, and well-designed structures are seen as essential in creating a safer environment. Additionally, the effectiveness of certain management techniques, such as seclusion and de-escalation, is perceived to play a crucial role in preventing assaults on nurses.

These results have important implications for healthcare facilities, emphasizing the need to invest in resources, training, and protocols that prioritize the safety and well-being of nursing staff. By addressing these factors, institutions can strive to create safer environments for both healthcare professionals and psychiatric patients.

4.3 Aggressive Psychiatric Patients' Factors Associated with Nurses' Assault at MNTRH

Table 3: Aggressive Psychiatric Patients' Factors Associated with Nurses' Assault at MNTRH

Descriptive Statistics					
	N	Min	Max	Mean	Std. Dev.
The male psychiatric patients are the most aggressive and mostly assaulting the nurses than female psychiatric patients at MNTRH.	82	1.00	5.00	3.5	1.31
The female psychiatric patients are the most aggressive and mostly assaulting the nurses than female psychiatric patients at MNTRH.	82	1.00	5.00	2.3	1.14
Young psychiatric patients at MNTRH are more aggressive and frequently assault nurses than older patients.	82	1.00	5.00	2.5	1.03
Patients suffering from Schizophrenia are the most aggressive patients and assault nurses frequently at MNTRH	82	1.00	5.00	3.2	1.17
Substance-induced psychiatric patients are the most aggressive patients and assault nurses frequently at MNTRH	82	1.00	4.00	1.8	0.66
Mood disorder psychiatric patients are the most aggressive patients and assault nurses frequently at MNTRH	82	1.00	4.00	2.1	0.90
The psychiatric patients who have had the illness for a long time less frequently assault nurses at MNTRH	82	1.00	5.00	2.3	0.99
The psychiatric patients who adhere to their treatment less frequently assault nurses at MNTRH	82	1.00	4.00	1.7	0.91
The psychiatric patients who have stayed for long in the wards assault nurses most frequently.	82	1.00	5.00	3.9	1.15
The psychiatric patients who have shortly stayed in the wards assault the nurses most frequently.	82	1.00	5.00	2.6	0.99
The psychiatric patients who have been abandoned by their relatives frequently assault the nurses most	82	1.00	5.00	3.2	1.22

Table 3 shows that male psychiatric patients are the most aggressive with a mean of 3.5. This suggests a perceived gender-based difference in aggressive behavior among psychiatric patients, with nurses believing that male patients pose a higher risk of aggression towards them.

The mean rating for the perception that female psychiatric patients are less aggressive is 2.3. While respondents agree that females can be aggressive, the intensity of the perception is lower compared to male patients, indicating that female patients are perceived as less aggressive or less likely to assault nurses.

The mean rating for the perception that young psychiatric patients are more aggressive is 2.5. This implies that respondents are neutral about the age of patients playing a role in the likelihood of aggressive behavior among psychiatric patients.

Moreover, patients suffering from Schizophrenia are perceived to be the most aggressive and frequently assaulted nurses (Mean = 3.2) at MNTRH. This highlights a specific psychiatric diagnosis that nurses consider to be associated with higher aggression levels. It indicates that patients with Schizophrenia might present a particular challenge in managing their aggressive tendencies.

Substance-induced psychiatric patients are also perceived as aggressive and prone to assaulting nurses (Mean = 1.8). The data suggests that the influence of substances on patients' behavior is recognized as a significant factor that can lead to aggression. Similarly, mood disorder psychiatric patients are perceived to be aggressive and frequently assault nurses (Mean = 2.1). This indicates that mood disorders, such as depression or bipolar disorder, are also seen as potential contributing factors to aggressive behavior.

Interestingly, psychiatric patients who have had the illness for a long time are perceived to less frequently assault nurses (Mean = 2.3). This suggests that nurses believe longer illness duration might lead to better control over aggressive tendencies. Patients who have been managing their condition for an extended period may have developed coping strategies or experienced successful treatment interventions.

Conversely, patients who have stayed for a long time in the wards are perceived to assault nurses most frequently (Mean = 3.9). This finding suggests that prolonged hospitalization might be associated with higher aggression levels. It implies that patients who have been in the hospital for an extended time may experience increased frustration or stress, leading to more frequent aggressive incidents.

Moreover, patients who have shortly stayed in the wards are perceived to assault nurses frequently (Mean = 2.6). This finding indicates that even short-term patients might present challenges related to aggression. It suggests that nurses must remain vigilant in assessing and managing aggression risks, regardless of the patient's length of stay.

Finally, psychiatric patients who have been abandoned by their relatives are also perceived to frequently assault nurses (Mean = 3.2). This finding highlights the potential impact of lack of family support on patient behavior. Patients who feel abandoned or lack a strong support system may be more prone to aggressive acts as a response to their feelings of distress or frustration.

The findings suggest that gender, age, psychiatric diagnosis, substance use, illness duration, family involvement, and family support can all influence the likelihood of patient aggression. This finding is supported by the findings of Vieta et al. (2017) who noted similar factors in Spain. Therefore, the findings can inform healthcare professionals in tailoring their approaches to effectively prevent and manage aggressive behavior, thus promoting a safer environment for both nurses and patients.

4.4 Assault among Nurses Attending to Aggressive Psychiatric Patients at MTRH

The respondents were asked to indicate their experience with selected statements about assaults among nurses by aggressive psychiatric patients at MNTRH.

Table 4: Assault among Nurses Attending to Aggressive Psychiatric Patients at MTRH

Descriptive Statistics					
	N	Min	Max	Mean	Std. Dev.
There have been cases of Intentional physical harm or violence inflicted on nurses by aggressive psychiatric patients at MNTRH	82	1.00	5.00	2.6	1.22
There have been cases of aggressive psychiatric patients at MNTRH using either harsh, demeaning, or threatening language to humiliate nurses	82	1.00	4.00	1.8	0.94
There have been cases of non-consensual sexual contact, advances, and threats of sexual violence toward nurses by aggressive psychiatric patients at MNTRH	82	1.00	5.00	3.8	1.17
There have been cases of aggressive psychiatric patients at MNTRH Intentionally causing psychological and emotional distress to nurses through manipulation, humiliation, or psychological tactics	82	1.00	4.00	1.9	0.95

According to the findings, there have been instances of intentional physical harm or violence inflicted on nurses by aggressive psychiatric patients at MNTRH. The mean score of 2.6 indicates a moderate level of agreement among the respondents. This suggests that nurses have experienced physical aggression from some patients, highlighting the inherent risks they face in their daily work. The data also reveals that some aggressive psychiatric patients at MNTRH resort to using harsh, demeaning, and threatening language to humiliate nurses. The mean score of 1.8 indicates a relatively lower level of agreement among the respondents. While verbal aggression might have occurred, it appears to be less prevalent compared to other forms of assault.

On a more concerning note, the data indicates that there have been cases of non-consensual sexual contact, advances, and threats of sexual violence toward nurses by aggressive

psychiatric patients at MNTRH. The mean score of 3.8 reflects a higher level of agreement among respondents, indicating that nurses have been subjected to sexual harassment and violence in the workplace. Moreover, the data highlights that aggressive psychiatric patients intentionally cause psychological and emotional distress to nurses through manipulation, humiliation, or psychological tactics. The mean score of 1.9 indicates a moderate level of agreement among the respondents. This suggests that nurses have faced emotional challenges and manipulation from some aggressive patients, impacting their well-being and mental health.

The data indicates that nurses have experienced various forms of violence, including physical harm, verbal aggression, sexual harassment, and psychological distress. These findings underscore the critical importance of implementing measures to safeguard the safety and well-being of nurses in psychiatric settings (Chieze et al., 2020).

Healthcare institutions should take these concerns seriously and provide adequate training, support, and resources to equip nurses with the necessary tools to effectively manage and prevent such incidents. Establishing a culture of respect and zero tolerance for violence and harassment is vital to creating a safe and supportive environment for both nurses and patients.

4.5 Regression Analysis

The regression analysis sought to examine the collective predictive power of aggressive psychiatric patients' factors associated with assaults, health facility factors associated, and nurse's factors associated with assault on the dependent variable, Assaults among Nurses at MNTRH. The model summary is presented in Table 5.

Table 5: Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.517 ^a	.267	.239	.53783

a. Predictors: (Constant), Aggressive Psychiatric Patients' Factors Associated with Assaults, Health Facility Factors Associated, Nurse's Factors Associated with Assault

The model summary shown in Table 5 demonstrates that these factors collectively explain a significant amount of the variation in Assaults among Nurses at MNTRH. The multiple correlation coefficient (R) is 0.517, indicating a moderate overall strength of the association. The coefficient of determination (R Square) is 0.267, indicating that around 26.7% of the variation in attacks among nurses can be accounted for by the combined impact of the predictors. The modified coefficient of determination, taking into account the number of predictors, is 0.239, which offers a more precise assessment of the model's ability to explain the variation in the data. The standard error of the estimate is 0.53783, which indicates the average difference between the observed and projected values. These findings provide insight into how the mentioned characteristics can collectively predict and potentially reduce assaults against nurses at MNTRH.

Table 6: Analysis of Variance

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.231	3	2.744	9.485	.000 ^b
	Residual	22.562	78	.289		
	Total	30.793	81			
a. Dependent Variable: Assaults among Nurses at MNTRH						
b. Predictors: (Constant), Aggressive Psychiatric Patients' Factors Associated with Assaults, Health Facility Factors Associated, Nurse's Factors Associated with Assault						

The ANOVA in Table 6 assesses the statistical significance of the regression model in predicting the occurrence of assaults among nurses at MNTRH. The predictors used in the model include factors related to aggressive psychiatric patients, factors related to health facilities, and factors related to the nurses themselves. The ANOVA analysis reveals that the regression model exhibits statistical significance ($F=9.485$, $p<0.001$), suggesting that the variables combined make a substantial contribution to explaining the variation in assaults among nurses at MNTRH. The regression model has a sum of squares of 8.231, with 3 degrees of freedom, leading to a mean square of 2.744. Conversely, the total of the squared differences between the observed values and the predicted values is 22.562, and this is calculated using 78 degrees of freedom. The F-statistic of 9.485 indicates that the model's explained variance is much higher than what would be predicted by random chance. These findings highlight the strength and reliability of the regression model in clarifying the factors linked to assaults on nurses at MNTRH.

Table 7: Regression Coefficients

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.237	.441		.536	.594
	Nurse's Factors Associated with Assault	.353	.123	.291	2.868	.005
	Health Facility Factors Associated	.369	.111	.326	3.324	.001
	Aggressive Psychiatric Patients' Factors Associated with Assaults	.222	.110	.205	2.020	.047
a. Dependent Variable: Assaults among Nurses at MNTRH						

The regression analysis in Table 7 provides useful insights into the factors that contribute to assaults among nurses at MNTRH. The overall model demonstrates statistical significance ($F=9.485$, $p<0.001$), indicating that the combined influence of Nurse's Factors Associated with Assault, Health Facility Factors Associated, and Aggressive Psychiatric Patients' Factors Associated with Assaults significantly contributes to explaining the variation in nurse assaults. Upon analyzing the coefficients, it is evident that nurse factors associated with assault have a considerable influence ($B=0.353$, $p=0.005$), indicating that an increase in nurse-related factors corresponds to a significant rise in assaults. Health facility factors, as indicated by the significant association ($B=0.369$, $p=0.001$), have a notable impact on attacks, suggesting that the conditions within the healthcare facility are a significant contributing factor. The study found that factors associated with assaults in aggressive psychiatric patients had a substantial, albeit lesser, contribution ($B=0.222$, $p=0.047$). The standardized coefficients (Beta) indicate the relative significance of each predictor, with Nurse's Factors Associated with Assault having the most influence. These findings highlight the complex nature of the problem, emphasizing the need for focused interventions that address both individual variables related to nurses and the conditions within the institution. This will help improve safety in psychiatric settings at MNTRH.

5.0 Conclusion

This study has yielded invaluable insights into the occurrence of assaults on nurses while tending to aggressive psychiatric patients at Mathari National Teaching and Referral Hospital (MNTRH). The research findings have illuminated a multitude of factors intertwined with nurse assaults, providing a comprehensive understanding of this intricate issue. Firstly, a glaring vulnerability among female nurses has been uncovered, highlighting the imperative need for tailored support and safety measures for this demographic. Surprisingly, the study unveiled that older nurse, contrary to conventional assumptions, faced a heightened risk of assaults, accentuating the urgency of addressing this concern across all age groups.

Experience and training have surfaced as pivotal mitigating factors, underscoring the profound significance of education and practical experience in effectively managing aggression. Interestingly, the research revealed that both harsh language and firm decision-making by nurses were associated with a higher risk of assaults, implying the necessity for more nuanced communication strategies. Furthermore, health facility factors emerged as crucial determinants of nurse safety, with an adequate nurse-to-patient ratio, continuous training, and access to essential medications being identified as indispensable components of a secure work environment. Facilities with appropriate structures for handling aggressive psychiatric patients reported fewer assaults, emphasizing the importance of infrastructure and management techniques.

Patient-related factors, including gender, age, psychiatric diagnoses, illness duration, and family involvement, have been pinpointed as influential factors in the likelihood of assaults. A comprehensive understanding of these patient-related dynamics is essential for tailoring effective intervention strategies.

The study also employed inferential statistics, uncovering moderate positive correlations between nurse-related factors, facility factors, and patient-related factors with the incidence of nurse assaults. Regression analysis elucidated that approximately 26.7% of the variance in

nurse assaults could be explained, underscoring the relevance of the identified factors while acknowledging the existence of unexplored variables.

In essence, this research underscores the necessity for a multifaceted approach to enhance nurse safety in psychiatric healthcare settings. It advocates for targeted training, the development of communication skills, and the provision of adequate resources and support within healthcare facilities. Additionally, interventions should take into account patient-related variables to create a safer and more conducive environment for both nurses and patients. Subsequent studies should delve deeper into these multifaceted dynamics to refine strategies aimed at promoting nurse safety and well-being in the demanding landscape of psychiatric healthcare.

6.0 Recommendations

6.1 Factors Associated with Assaults on Nurses by Aggressive Psychiatric Patients at MNTRH

To address the pressing issue of assaults on nurses by aggressive psychiatric patients at MNTRH, the government must take proactive steps. First and foremost, the implementation of gender sensitivity training programs within MNTRH is paramount. These programs should aim to sensitize healthcare personnel to the unique vulnerabilities faced by female nurses, ultimately fostering an environment that is more respectful and protective.

Moreover, the hospital management should play an active role in safeguarding their nursing staff. This includes developing safety measures and protocols that specifically take into account the vulnerability of older nurses, those aged 57 and above. Recognizing their unique needs and potential risks is essential to ensure their well-being.

Continuous training and professional development must be prioritized for nurses dealing with aggressive psychiatric patients. Given the challenging nature of their work, ongoing education will equip them with the necessary skills and knowledge to provide quality care while minimizing risks. Communication skills, especially those focused on de-escalation techniques and empathetic communication should be a central component of this training.

6.2 Health Facility Factors Associated with Assaults on Nurses

To mitigate assaults on nurses, both the hospital management and government must collaborate on improving health facility factors. Maintaining an adequate nurse-to-patient ratio is paramount, as it directly affects the workload on nurses. By ensuring manageable workloads, the safety of nurses can be significantly enhanced.

Hospital management should also take the initiative to establish comprehensive training programs for nurses. These programs should encompass safety protocols, violence prevention strategies, and the use of management techniques such as chemical restraints, seclusion, and de-escalation. Equipping nurses with these skills is pivotal in creating a secure healthcare environment.

Additionally, the design of healthcare facilities should prioritize the effective management of aggressive patients and guarantee the physical safety of both nurses and patients. Adequate infrastructure and security measures should be in place to minimize the risk of assaults.

6.3 Factors Related to Aggressive Psychiatric Patients

Addressing factors related to aggressive psychiatric patients requires a multi-faceted approach. The hospital management should develop specialized care plans and provide additional staff training specifically tailored to dealing with male patients. Recognizing and adapting to gender-specific needs is essential for their safety and effective care.

Government intervention is necessary to develop interventions customized for younger psychiatric patients who may be more prone to aggression. These interventions should focus on early identification and proactive management of aggressive behavior, ensuring the safety of all parties involved.

Furthermore, raising awareness among healthcare staff about the potential for increased aggression among patients with specific diagnoses, such as schizophrenia, substance-induced psychiatric disorders, and mood disorders, is vital. This awareness will enable healthcare providers to adapt their care strategies and enhance patient safety.

Encouraging family involvement in patient care is essential but should be done while maintaining clear boundaries and support systems. Balancing family support with the need for a secure healthcare environment is crucial for everyone's well-being.

6.4 Types of Assaults Experienced by Nurses

To effectively address the various types of assaults experienced by nurses, comprehensive measures are needed. The government should prioritize providing comprehensive training to nurses on recognizing and responding to different types of assaults, including physical, verbal, sexual, and psychological. Equipping nurses with the knowledge and skills to identify and manage these situations is paramount.

The hospital management should establish clear reporting mechanisms within MNTRH for nurses to document and report assaults. This will ensure that incidents are properly documented and addressed, contributing to a safer working environment.

In addition, the government should offer legal support and protection for nurses who experience assaults while on duty. Knowing that they have legal recourse and protection will empower nurses to report incidents and seek justice, ultimately fostering a culture of safety and accountability within MNTRH.

References

- Adeniyi, O. V., & Puzi, N. (2021). Management approach of patients with violent and aggressive behaviour in a district hospital setting in South Africa. *South African Family Practice*, 63(1), 1–7. <https://doi.org/10.4102/SAFP.V63I1.5393>
- Caruso, R., Antenora, F., Riba, M., BelvederiMurri, M., Biancosino, B., Zerbinati, L., & Grassi, L. (2021). Aggressive Behavior and Psychiatric Inpatients: A Narrative Review of the Literature with a Focus on the European Experience. *Current Psychiatry Reports*, 23(5). <https://doi.org/10.1007/s11920-021-01233-z>
- Chieze, M., Kaiser, S., Courvoisier, D., Hurst, S., Sentissi, O., Fredouille, J., & Wullschlegel, A. (2021). Prevalence and risk factors for seclusion and restraint in old-age psychiatry inpatient units. *BMC Psychiatry*, 21, 1-10.

- Kibunja, B. K., Musembi, H. M., Kimani, R. W., & Gatimu, S. M. (2021). Prevalence and Effect of Workplace Violence against Emergency Nurses at a Tertiary Hospital in Kenya: A Cross-Sectional Study. *Safety and Health at Work*, 12(2), 249–254. <https://doi.org/10.1016/j.shaw.2021.01.005>
- Ochieng, T. (2018). *Evaluate Nurses And Doctor's Perspective Of Quality Of Mental Health Emergency Care At Mathari National Teaching And Referral Hospital*".
- Olashore, A.A., Akanni, O.O. & Ogundipe, R.M. (2018). Physical violence against health staff by mentally ill patients at a psychiatric hospital in Botswana. *BMC Health Serv Res* 18, 362 <https://doi.org/10.1186/s12913-018-3187-6>
- Pekurinen, V., Willman, L., Virtanen, M., Kivimäki, M., Vahtera, J., & Välimäki, M. (2017). Patient Aggression and the Wellbeing of Nurses: A Cross-Sectional Survey Study in Psychiatric and Non-Psychiatric Settings. *International Journal of Environmental Research and Public Health*, 14(10), 1245. <https://doi.org/10.3390/ijerph14101245>
- Ridenour, M., Lanza, M., Hendricks, S., Hartley, D., Rierdan, J., Zeiss, R., & Amandus, H. (2015). Incidence and risk factors of workplace violence on psychiatric staff. *Work (Reading, Mass.)*, 51(1), 19–28. <https://doi.org/10.3233/WOR-141894>
- Schlup, N., Gehri, B., & Simon, M. (2021). Prevalence and severity of verbal, physical, and sexual inpatient violence against nurses in Swiss psychiatric hospitals and associated nurse-related characteristics: Cross-sectional multicentre study. *International Journal of Mental Health Nursing*, 30(6), 1550-1563. <https://doi.org/10.1111/inm.12905>
- Stevenson, K. N., Jack, S. M., O'Mara, L., et al. (2015). Registered nurses' experiences of patient violence on acute care psychiatric inpatient units: An interpretive descriptive study. *BMC Nursing*, 14, 35. <https://doi.org/10.1186/s12912-015-0079-5>
- Vieta, E., Garriga, M., Cardete, L., Bernardo, M., Lombraña, M., Blanch, J., ... Martínez-Arán, A. (2017). Protocol for the management of psychiatric patients with psychomotor agitation. *BMC Psychiatry*, 17(1), 1–11. <https://doi.org/10.1186/s12888-017-1490-0>.
- Weltens, I., Bak, M., Verhagen, S., Vandenberk, E., Domen, P., van Amelsvoort, T., & Drukker, M. (2021). Aggression on the psychiatric ward: Prevalence and risk factors. A systematic review of the literature. *PLOS ONE*, 16(10), e0258346. <https://doi.org/10.1371/journal.pone.0258346>