

# Causes and Management of Psychiatric Inpatient Aggression and Violence: Comparison between Egyptian and Saudi Nurses' Perspectives

Eman Dawood<sup>1, 2,\*</sup>

1. Psychiatric Mental Health Nursing Department, College of Nursing, Menofya University, Shebin El-Kom, Egypt.
2. Nursing Department, College of Nursing, King Saud bin Abdulaziz University for Health Sciences – Riyadh, Kingdom of Saudi Arabia.

\* E-mail of the corresponding author: [dawoode@ksau-hs.edu.sa](mailto:dawoode@ksau-hs.edu.sa)

## Abstract

**Objectives:** the purpose of the current study is to investigate and compare between the Egyptian and Saudi nurses' perspectives of causes of inpatient aggression and violence in psychiatric mental health hospitals and the different ways to manage aggression and violence. **Methods:** A convenience sample of 128 nurses working in three different mental health hospitals (65 Egyptians "two hospitals", 63 Saudi "one hospital"). Participants were asked to complete the Management of Aggression and Violence Attitude Scale. An explanation about the purpose and the nature of the study was offered for each individual potential participant. Agreement to complete the questionnaire worked as an informed consent. Subjects were assured about the confidentiality of the collected data and that it will be only used by the researcher for the purpose of the current study. Data were analyzed using SPSS version 18. **Results:** Nurses perceived the restrictive physical environment as contributing factor to the patient aggression, manipulating this restrictive environment might help in reducing the patients' aggression and violence. More Saudi nurses believe that physical restraint is sometimes used more than necessary ( $p = .003$ ), Alternatives to the use of containment and sedation to manage patient violence could be used more frequently ( $p = .001$ ), while more Egyptian nurses agreed upon prescribed medication can sometimes lead to aggression ( $p = .01$ ) and that prescribed medication should be used more frequently for aggressive patients ( $p = .000$ ). Findings revealed statistically significant relationship between years of experience as a psychiatric nurse and total MAVAS score, internal factors, external factors, situational factors scores ( $p = .000, .004, .000, .000$  respectively) surprisingly, years of experience had no significant relationship with the management factor score. On the other hand the number of managed aggression/ violence cases added to the nurses opinions in relation to the management factor score as revealed in the statistically significant relationship between the two variables ( $p = .000$ ). **Conclusion:** Psychiatric inpatient aggression and violence is commonly reported emergency that requires immediate, prompt nursing interventions to reduce and prevent its negative consequences on both patients and staff in inpatient psychiatric settings. In-service continuing educational programs concerning aggression and violence management are required to train and update nursing staff on provoking factors and proper methods of management of aggression and violence.

**Keywords:** aggression, violence, causes, management, mental health nursing, psychiatric nurses, inpatient psychiatry.

## 1. Introduction

Aggression in the health care settings is a well evidenced dilemma and constitutes a very significant area for nursing research, furthermore psychiatric patients' aggression and violence in mental health hospitals is an escalating problem that poses a threat to the physical and psychological health of all the involved parties including the aggressive patients, other patients in the unit and the care providers especially nurses who are the most prone to endure violence (Cooper & Swanson 2002, Winstanley & Wittington 2004, Hahn, Needham, Abderhalden, Duxbury & Halfens 2006 & Foster, Bowers & Nijman 2007). Aggressive / violent behaviors can results in serious consequences including significant distress and sometimes injuries for staff and are thought to contribute to undermining staff members' feelings of safety, low morale, high sickness, high staff turnover, and high vacancy rates (Fluttert, Meijel, Nijman, Bjorkil & Grypdonck 2010 & Garcia et al., 2005). Poor staffing is linked to lower standards of care (Bowers et al., 2005a). Furthermore, victims of the aggression / violence might experience symptoms consistent with post traumatic stress disorder diagnostic criteria (Cox 1987, 1991a, 1991b, Walsh and Clarke, 2003, Farrell, 2006, Inoue et al., 2006, Bonner 2007 & McLaughlin 2010).

Aggression is a broad term having different meanings to different individuals. It was broadly defined in the literature as "hostile, injurious or destructive behavior" (Merriam-Webster, 2008). Mason and Chandley (1999) agreed that violence stems from aggression, and stating that aggression, if not managed, can build up to such an extent that a person may become violent, or act violently towards others. Therefore, violence is seen as the action of aggression towards persons, or the property of self and others. Specific examples of aggression include verbal assault, threatening or intimidating behavior, assault on property, self-injury, and physical assault directed at

others such as, kicking, scratching, spitting, hitting with hand or fist, hitting with object, throwing objects, pinching, biting, grabbing clothes, pulling hair, choking, strangling or sexually threatening, (Chou, Lu & Mao 2002, Duxbury 2002, Foster et al., 2007, Grassi et al., 2006, Owen, Secker et al., 2004 & Sukhodlsky, Cardona & Martin, 2005). In a study conducted by Guthrie, Tattan, Williams, et al. (1999), psychiatrists of all grades found that dealing with violent patients was the most stressful aspect of their work experience. Attitudes are determinants of behaviors, from this perspective, nurses' attitudes and knowledge about reasons for psychiatric patients' aggression and violence may impact their management of aggressive patients which in turn influence their recruitment and retention (Baron 1992 & Whittington 2002).

Many theories have been developed in attempt to investigate and explain various causes of inpatient aggression. Nijman, Camp, Ravelli & Merckelbach, (1999) created a tentative model of aggression on in-patient psychiatric wards and then Nijman (2002) adapted her model of aggression in psychiatric hospital. This model explains causes of psychiatric patients' aggression and violence in multifactor model including three dominant variables named internal, external and situational/interactional models. Each model highlights an area of concern including, patient variables, environmental factors and discrepancy within the car provider – patient relationship, respectively (Duxbury 2002 & Fluttert et al. 2010).

Internal model refers to factors related to the patient himself and mostly includes factors as patient's age, gender and diagnosis. Numerous studies have explored the association between aggression and illness (Linaker & Busch-Iversen 1995 & Link & Stueve 1995). External model emphasize the environmental factor as a main contributing factor to the prevalence of aggression. Environmental risk factors for psychiatric inpatient aggression includes provisions for privacy and space, location, type of regime, denial of services or liberty and the impact of unit design (Nijman et al. 1999 & Nijman, 2002). Flannery et al. (1994) reported that assaults occur most frequently as a result of an increase in nursing and medical activities after the weekend such as ward rounds and group therapy. To overcome those risk factors, it is recommended that mental health hospitals should contribute to the patient' safety, comfort, privacy and should make him feel like home. Situational/interactional model highlights the role of negative staff – patients' relationship in provoking psychiatric patient aggression (Duxbury 2002). It has been deemed that aggressive incidents are more likely to be preceded by a combination of interpersonal and environmental antecedents than by symptomatic behavior (Shepherd & Lavender 1999). Numerous researchers have highlighted the significance of considering the multiple reasons for a inpatient aggression rather than relying on 'illness' as an justification for this aggressive behavior (Bonner et al., 2002, Spokes et al., 2002, Whittington 2002 & Patterson et al., 2008) but the difficulties in creating such a shift in that attitude (Hahn et al., 2006) are acknowledged.

Management of psychiatric inpatient aggression / violence varies widely according to the institutional policies and includes: special observation, the use of restraint, seclusion, compensatory medications and the use of de-escalation (Johnson 2001). More research studies are needed to investigate the effectiveness of different interventions on managing psychiatric inpatient aggression. More emphasis is needed on preventable measures to approach psychiatric patients at higher risks for violence. Proper training for dealing with aggression has been recommended across all disciplines (Wells and Bowers, 2002, Winstanley and Whittington 2004, Needham et al, 2005, Rew & Ferns 2005). However, there is a lack of consistent training for nurses on aggression and violence (Beech and Leather, 2006 & Nau et al., 2007).

The Royal College of Psychiatrists' National Audit of Violence found that a third of inpatients had experienced violent or threatening behavior while in care. This figure rose to 41% for clinical staff and doubled to nearly 80% of nursing staff working in these units (Healthcare Commission 2005). Staff working in nursing mental health hospitals experience frequent harassment, assaults, and violence by the patients experiencing mental health problems. However, in Egypt and Saudi Arabia at present, there are neither accurate statistics nor published research available on violence and aggression in the inpatient care setting. The purpose of this study is to investigate and compare between the Egyptian and Saudi nurses' perspectives of causes of inpatient aggression and violence in psychiatric mental health hospitals and the different approaches to manage psychiatric inpatient aggression and violence.

## **2. Subjects and Methods**

### **2.1 Research Design**

A descriptive correlation, cross – sectional research design was utilized to conduct the current study with the aim to investigate and compare the Egyptian and Saudi nurses' perspectives of the causes and the different ways of management of inpatient aggression and violence in psychiatric mental health hospitals.

### **2.2 Subjects**

A convenience sample of 128 Egyptian and Saudi nurses was involved in the study. Sample was selected from three different hospitals. Two Egyptian mental health hospitals located in central delta (n = 65 psychiatric nurse) and one Saudi mental health hospital located in the central region of Saudi Arabia (n = 63 psychiatric

nurse).

### 2.3 Ethical Issues

An explanation about the purpose and the nature of the study was offered for each individual potential participant. Qualified subjects were asked to complete the survey questionnaire. Voluntary participation was assured. Verbal agreement to complete the questionnaire worked as an informed consent. Subjects were assured about the confidentiality and anonymity of the collected data and that it will be only used by the researcher for the purpose of the current study.

### 2.4 Tool

After thorough literature review, data were collected using a questionnaire survey consisted of two parts. First part designed by the researcher and included questions related to the participant's gender, degree of education, workplace, years and months of experience as a psychiatric nurse and the number of aggression and violence incidences they witnessed and managed in the last week. The second part of the questionnaire survey consisted of the 27 items the Management of Aggression and Violence Attitude Scale (MAVAS) developed by Duxbury (2002), the scale encompass 27 statements concerning different causes of violence and different approaches to violence management. Participants were asked if they agree or disagree with each statement. Statements of The MAVAS are categorized into 4 groups as following: Five statements concerning internal causes of aggression and violence, three statements concerning external causes of aggression and violence, another five statements reflecting the situational/interactional causes of patients' aggression and violence. In addition, fourteen statements reflect the general management of aggression. The correlation coefficient for test-retest reliability of the MAVAS was 0.86.

A bilingual Arabic-English speaking assistant professor in psychiatric nursing had translated the MAVAS into Arabic. Back translation was performed by another professional bilingual Arabic-English speaking psychiatric nurse. The Arabic version of the questionnaire was piloted on five native Arabic speaking psychiatric nurses to test the feasibility and applicability of the tools, and identified the most suitable time to collect data. The result of the pilot study was helpful in refining the survey questionnaire form and confirmed the face validity of the scale; furthermore, they agreed that the scale statements were relevant to the actual nursing practice in both Egyptian and Saudi psychiatric nursing. Subjects needed 10 -15 minutes to complete the questionnaire.

### 2.5 Data Analysis

Data was coded for entry and analysis using SPSS statistical software package version 18. Data was presented using descriptive statistics in the form of frequencies and percentages. Interval and ratio variables were presented in the form of means and standard deviations. Nominal and ordinal variables were compared using chi-square test and Mann-Whitney tests. Independent t test was used to compare between ratio and interval data of the two groups (Egyptian and Saudi nurses). Relationships between variables were test using Pearson r test. The significance level was chosen as ( $p < 0.05$ ).

## 3. Results

Data were collected from 3 different psychiatric mental health hospitals with the aim to investigate and compare the Egyptian and Saudi nurses' perspectives of the causes and the different ways of management of inpatient aggression and violence in psychiatric mental health hospitals. The sample consisted of 128 nurses, 65 Egyptian nurses from two mental health hospitals and 63 Saudi psychiatric nurses recruited from one mental health hospital.

Comparison of the sociodemographic status between Egyptian and Saudi nurses in table one showed that the two groups were comparable regarding gender, length of experience as a psychiatric nurse and number of cases of aggression and violence they dealt with in the last week as there were no statistical significant differences in those variables between the two groups ( $p = 0.146, 0.106, 0.528$  respectively). Egyptian psychiatric nurses work experience ranged between 1 month and 23 years with a mean of  $104.85 \pm 76.452$  months while Saudi nurses work experience ranged between 3 month and 264 months with a mean of  $83.05 \pm 75.037$  months.

As presented in table 1 there was a statistically significant difference between the two groups regarding their degree of education, and unit of their work ( $p = 0.000, p = 0.001$ , respectively). The Saudi nurses group had more nurses (22.2 %) with bachelor degree while the Egyptian group had more nurses (9.2 %) with high diploma degree compared to (0 %) from the Saudi group. More nurses in the Egyptian group (63.1 %) worked in the chronic care unit while more than quarter of the Saudi nurses (27.0 %) worked in the addiction unit. While more than half of the Saudi nurses (58.7%) received formal training programs provided through the in-service continuing education department in the hospital, more than 80 % of the Egyptian nurses had not received any formal training related to aggression management.

**Table 1: Comparison of the Sociodemographic Data between Egyptian and Saudi Psychiatric Nurses**

Variable	Egyptian N = 65 ( % )	Saudi N = 63 ( % )	Test of Significance	P. Value
<b>Gender</b>				
Male	27 (41.5)	33 (52.4)	Z = 1.826	0.221
Female	38 (58.5)	30 (47.6)		
<b>Degree of Education</b>				
Diploma	40 (61.5)	49 (77.8)	Z = 1582	0.006
High Diploma	19 (9.2)	0 (0)		
Bachelor	6 (29.2)	14 (22.2)		
<b>Workplace</b>				
Acute care unit	11 (16.9)	10 (15.9)	Z = 1546	0.01
Chronic care unit	41(63.1)	25 (39.7)		
Emergency department	10 (15.4)	11 (17.5)		
Addiction unit	3 (4.6)	17 (27.0)		
<b>Years of Experience</b>				
Less than 1 year	7 (10.8)	16 (25.4)	t = 1.627	0.106
1 – less than 5 years	8 (12.3)	11 (17.5)		
5 – less than 10 years	21 (32.3)	18 (28.6)		
More than 10 years	29 (44.6)	18 (28.6)		
Mean	104.85	83.05		
SD	76.452	75.037		
<b>No. of cases of aggression</b>				
Less than 5 cases	54 (83.1)	41 (65.1)	t = 0.634	0.528
5 – less than 10 cases	4 (6.2)	18 (28.6)		
More than 10 cases	7 (10.8)	4 (6.3)		
Mean	4.18	5.94		
SD	3.65	3.122		
<b>Did you receive formal training in aggression management</b>				
Yes	12 (18.5)	37 (58.7)	Z = 1223	0.000
No	53 (81.5)	26 (41.3)		

**Table 2: Comparison of MAVAS Responses – Internal Factor between Egyptian and Saudi Nurses**

Statement	Egyptian N = 65 ( % )		Saudi N = 63 ( % )		Z	P
	Agree	Disagree	Agree	Disagree		
It is difficult to prevent patients from becoming aggressive	30 (46.2)	35 (53.8)	31 (49.2)	32 (50.8)	1985	0.731
Patients are aggressive because they are ill	50 (76.9)	15 (23.1)	45 (71.4)	18 (28.6)	1935	0.479
There are types of patients who are aggressive	65 (100)	0 (0)	54 (85.7)	9 (14.3)	1775	0.002
Patients who are aggressive should try to control their feelings	61 (93.8)	4 (6.2)	53 (84.1)	10 (14.9)	1848	0.079
Aggressive patients will calm down if left alone	24 (36.9)	41 (63.1)	22 (34.9)	41 (65.1)	2006	0.814

Mann-Whitney test of significance showed only significant difference between Egyptian and Saudi nurses in relation to the statement “there are types of patients who are aggressive” p = 0.002.

Table 2 presents the internal causes of aggression as perceived by Egyptian and Saudi nurses. results show that majority of Egyptian and Saudi nurses agreed upon that aggression is related to the nature of their illness and that aggressive patients should try to control their feeling, on the other hand, more than 60 % of Egyptian and Saudi nurses disagreed that leaving the aggressive patients alone would help them to calm down.

**Table 3: Comparison of MAVAS Responses – External Factor between Egyptian and Saudi Nurses**

Statement	Egyptian N = 65 (%)		Saudi N = 63 (%)		Z	P
	Agree	Disagree	Agree	Disagree		
Patients are aggressive because of the environment they are in	25 (38.5)	40 (61.5)	32 (51.6)	30 (48.4)	1750	0.138
Restrictive environments can contribute towards aggression	32 (49.2)	33 (50.8)	50 (79.4)	13 (20.6)	1430	0.000
If the physical environment were different, patients would be less aggressive	36 (55.4)	29 (44.6)	48 (76.2)	15 (23.8)	1621	0.014

Table 3 compares Egyptian and Saudi nurses' responses in relation to the perceived external factors that contribute to the patient aggression and violence. As shown in the table more Saudi nurses perceive the restrictive physical environment as contributing factor to the patient aggression and that manipulating this environment might help in reducing the patients' aggression and violence.

**Table 4: Comparison of MAVAS Responses – Situational / Interactional Factor between Egyptian and Saudi Nurses**

Statement	Egyptian N = 65 (%)		Saudi N = 63 (%)		Z	P
	Agree	Disagree	Agree	Disagree		
Other people make patients aggressive or violent	56 (86.2)	9 (13.8)	55 (87.3)	8 (12.7)	2024	0.849
Patients commonly become aggressive because staff do not listen to them	43 (66.2)	22 (33.8)	46 (73)	17 (27)	1907	0.401
Poor communication between staff and patients leads to patient aggression	56 (86.2)	9 (13.8)	55 (87.3)	8 (12.7)	2024	0.849
Improved one to one relationships between staff and patients can reduce the incidence of patient aggression	61 (93.8)	4 (6.2)	59 (93.7)	4 (6.3)	4043	0.964
It is largely situations that can contribute towards the expression of aggression by patients	61 (93.8)	4 (6.2)	58 (92.1)	5 (7.9)	2011	0.694

Table 4 describes all the situational/interactional factors that cause patients' aggression/ violence. As indicated in the table there was no statistically significant difference between Egyptian and Saudi nurses in all the five items of the MAVAS that describe the situational/interactional factors of patients' aggression.

Table 5 describes Egyptian and Saudi nurses' responses in relation to the category of the MAVAS related to aggression management. Mann-Whitney test of significance showed only significant difference between Egyptian and Saudi nurses in relation to four statements as more Saudi nurses believe that Physical restraint is sometimes used more than necessary ( $p = .003$ ), Alternatives to the use of containment and sedation to manage patient violence could be used more frequently ( $p = .001$ ), while more Egyptian nurses agreed upon prescribed medication can sometimes lead to aggression ( $p = .01$ ) and that prescribed medication should be used more frequently for aggressive patients ( $p = .000$ ).



**Table 5: Comparison of MAVAS Responses – Management Factor between Egyptian and Saudi Nurses**

Statement	Egyptian N = 65 (%)		Saudi N = 63 (%)		Z	P
	Agree	Disagree	Agree	Disagree		
Different approaches are used on the ward to manage aggression	56 (86.2)	9 (13.8)	57 (90.5)	6 (9.5)	1959	0.449
When a patient is violent seclusion is one of the most effective approaches	49 (75.4)	16 (24.6)	37 (58.7)	26 (41.3)	1706	0.046
Patients who are violent are restrained for their own safety	61 (93.8)	4 (6.2)	57 (90.5)	6 (9.5)	1978	0.479
The practice of secluding violent patients should be discontinued	61 (93.8)	4 (6.2)	53 (84.1)	10 (15.9)	1848	0.079
Medication is a valuable approach for treating aggressive and violent behavior	54 (83.1)	11 (16.9)	55 (87.3)	8 (12.7)	1961	0.503
Negotiation could be used more effectively when managing aggression and violence	43 (66.2)	22 (33.8)	49 (77.8)	14 (22.2)	1809	0.145
Expressions of anger do not always require staff intervention	34 (47.7)	31 (52.3)	40 (63.5)	23 (36.5)	1818	0.202
Physical restraint is sometimes used more than necessary	26 (40)	39 (60)	42 (66.7)	21 (33.3)	1501	0.003
Alternatives to the use of containment and sedation to manage patient violence could be used more frequently	47 (72.3)	18 (27.7)	59 (93.7)	4 (6.3)	1610	0.001
Patient aggression could be handled more effectively on this ward	57 (87.7)	8 (12.3)	58 (92.1)	5 (7.9)	1958	0.415
Prescribed medication can sometimes lead to aggression	33 (50.8)	32 (49.2)	18 (28.6)	45 (71.4)	1593	0.011
Seclusion is sometimes used more than necessary	32 (49.2)	33 (50.8)	35 (55.6)	28 (44.4)	1918	0.476
Prescribed medication should be used more frequently for aggressive patients	50 (76.9)	15 (23.1)	29 (46)	34 (54)	1415	0.000
The use of de-escalation is successful in preventing violence	54 (83.1)	11 (16.9)	58 (92.1)	5 (7.9)	1863	0.126

**Table 6: Comparison of the Total Mean Score of the MAVAS Categories and Its Total Score between Egyptian and Saudi Nurses**

MAVAS Categories and Total Scores	Egyptian (N = 65) M ± SD	Saudi (N = 63) M ± SD	t	P
Internal factors	3.54 ± .985	3.25 ± .782	1.805	0.073
External factors	1.43 ± 1.159	2.06 ± 0.903	-3.427	0.001
Situational factors	4.26 ± 1.094	4.33 ± 1.000	-0.387	0.699
Management factors	10.11 ± 1.778	10.27 ± 1.677	-0.530	0.597
Total MAVAS score	19.34 ± 2.514	19.87 ± 2.439	-1.211	0.228

Table 6 compares between Egyptian and Saudi nurses mean scores of the MAVAS categories and total scores. It shows that the two groups are comparable in the mean total score, internal factor, situational factor and management mean scores, while the results showed statistically significant difference between the two groups in relation to the external factor mean score (p = .001).

**Table 7: Comparison of the Total Mean Score of the MAVAS Categories and Its Total Score between Nurses Who Received Training on Aggression Management and Nurses Who Didn't Receive Any Training**

MAVAS Categories and Total Scores	Training on Aggression Management				t	P
	Yes		No			
	Mean	SD	Mean	SD		
Internal factors	3.20	.790	3.52	.945	1.947	.054
External factors	1.98	1.031	1.59	1.098	1.994	.048
Situational factors	4.55	.818	4.14	1.141	2.199	.030
Management factors	9.96	1.513	10.33	1.838	1.182	.240
Total MAVAS score	19.69	2.200	19.54	2.656	-.342	.733

Table 7 compares the mean scores of MAVAS categories between nurses who received training on aggression management and nurses who didn't receive any training. Results showed that training programs in aggression management made statistically significant difference in the nurses mean scores of only the external and situational factors that contribute to patient aggression / violence (  $p = .048, .030$ ).

**Table 8: Correlation between the Participants' Years of Experience and Number of Managed Violence Cases and Score of the MAVAS Categories and Its Total Score**

MAVAS Categories and Total Scores	Years of Experience		No. of Managed Violence Cases	
	r	P	r	p
Internal factors	.254	.004	.149	.093
External factors	.420	.000	.177	.047
Situational factors	.400	.000	.168	.058
Management factors	.161	.070	.332	.000
Total MAVAS score	.362	.000	.137	.124

As shown in Table 8, results of the current study reveals statistically significant relationship between years of experience as a psychiatric nurse and total MAVAS score, internal factors, external factors, situational factors scores (  $p = .000, .004, .000, .000$  respectively) surprisingly, years of experience had no significant relationship with the management factor score. On the other hand the number of managed aggression / violence cases added to the nurses opinions in relation to the management factor score as revealed in the statistically significant relationship between the two variables (  $p = .000$ ).

#### 4. Discussion

Psychiatric inpatient aggressive/ violent behaviors can results in serious consequences on aggressive patients, other patients in the unit, and all involved staff. Consequences include significant distress and sometimes injuries for staff which contribute to undermining staff members' feelings of safety, low morale, high sickness, high staff turnover, and high vacancy rates in mental health hospitals (Fluttert, Meijel, Nijman, Bjorkil & Gryndonck, 2010 & Garcia et al., 2005). Poor staffing is linked to lower standards of care (Bowers et al., 2005a). Consistent with the findings of the research studies by (Bock 2011 & Duxbury and Whittington 2005) from an internal perspective, both Egyptian and Saudi nurses clearly saw mental illness as a strong antecedent to psychiatric patients' aggression and violence.

Although some research studies suggest that delusional violence is rare and factors such as agitation are more common antecedents (Powell et al. 1994), severe psychopathology continues to be a major source of inpatient aggression (Link & Stueve 1995 & Nijman 2002). Steinert et al. (2000) found a strong association between thought disorders and violent behavior during inpatient treatment. Alcohol and drug intoxication is another potential for violence and aggression (Lanza et al., 1994). The situation is even worse with the dual diagnosis patients where there is combination between psychosis and substance abuse (Duxbury & Whittington 2005). Research studies have examined the negative impact of environmental factors (Nijman et al. 1999). Limit setting, the use of force and the authoritarian nursing style has each been reported as antecedent to patients' aggression (Lancee et al. 1995& Cheung et al. 1997).

In accordance with (Bock 2011) the current study pointed out that staff had been aware that the restrictive environment contributed to patient aggression. Saudi nurses perceive the restrictive physical environment of the mental health hospital as contributing factor to the patient aggression and that manipulating this environment might help in reducing the patients' aggression and violence. This finding could be interpreted by the higher socioeconomic status of Saudi Arabia compared to Egypt which make nurses expecting higher standers in the infrastructure and services provided in the Saudi mental health hospitals and make it comparable to the general hospitals.

Both Egyptian and Saudi nurses commented on the negative impact of non-therapeutic cultures in

psychiatric settings presented in poor communication and interaction between staff and patients and its major role on provoking patients' aggression. This finding is similar to the findings of the studies by (Morrison 1998 & Sheriden et al. 1990) who found that patients commonly report conflicts with staff as major contributing factor to violence. Poor communication may result from lack of training of the staff, inadequate resources and the absence of clear policies within the mental health facility (Wright et al. 2000 & Cowin et al. 2003).

Consistent with the findings of research study by (Duxbury & Whittington 2005), results of the current study suggested that approaches focused on control, using a numerous methods such as restraint, seclusion and medication are used in both Egyptian and Saudi mental health hospital to manage aggressive / violent patients. The continued use of 'traditional' approaches of this kind has been recognized in the studies by (Turnbull & Patterson 1999, Wright 1999 & Meehan et al. 2000). In this circumstance, both Egyptian and Saudi nursing staff need proper training to practice those aggression management approaches.

Results of the current study showed that neither years of experience as a psychiatric nurse nor receiving training programs in aggression management had any impact on nurses' management factor score, this finding is supported by Collins (1994) who evaluated the effect of training courses and quoted Robinson and Barnes (1989) "staff who underwent training failed to apply the newly acquired skills due to attitudes of their colleagues towards new techniques, lack of regular practice, staff shortages and poor support from management." However, those respondents who underwent training programs reported a decrease in anxiety when confronted by escalating patient anger (Collins 1994). On the other hand the number of managed aggression / violence cases added to the nurses opinions in relation to the management factor.

## 5. Conclusions

Psychiatric inpatient violence is a major problem frequently reported in mental health facilities. It is caused by multifactor including patients' diagnosis and psychopathology, environmental factor, interaction /communication factor. Improving nurses' knowledge and skills related to causes and management of psychiatric inpatient aggression and violence might help the nurses to early predict and properly intervene with the patients' aggression, which in return would reduce the negative consequences of such aggression and violence. Manipulating hospital environment and improving communication between the nurse and patient in the form of listening to patients, acknowledging that there could be improvement would lower the risk of psychiatric inpatient aggression and violence.

## Recommendations

Based on the findings of the current research study, the following recommendations are suggested: Further research, focusing on a wider range of workplace variables is needed to shed light on the current study findings. Replicate this study with larger and more heterogeneous randomly selected sample and a more sensitive tool to both the Egyptian and Saudi culture. Adding a qualitative research approach may enrich the theory and practical background concerning psychiatric inpatient aggression and violence management. In-service continuing educational programs concerning aggression and violence management are required to train and update nursing staff on provoking factors and proper methods of management of patients' aggression and violence.

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## Conflict of Interest

Researcher declares no conflict of interest with any organization regarding the materials discussed in this manuscript

## References

- Baron R. A. (1992). Psychology. 2<sup>nd</sup> Ed. Allyn & Bacon, Boston.
- Beech B, Leather P (2006). Workplace violence in the healthcare sector: a review of staff training and integration of training evaluation models. *Aggress Violent Behav* 11(1): 27–43.
- Bock, T. M. (2011). Assessment of attitudes related to the management of aggression and violence in four psychiatric hospital. Master thesis, Stellenbosch University, South Africa.
- Bonner G, Lowe T, Rawcliffe D, Wellman N (2002). Trauma for all: a pilot study of the subjective experience of



- physical restraint for mental health in patients and staff in the UK. *J Psychiatr Ment Health Nurs* 9(4): 465–73
- Bonner G (2007) *The Psychological Impact of Restraint in Acute Mental Health Settings: the Experiences of Staff and Inpatients*. Unpublished thesis
- Bowers, L., Allan, T., Simpson, A., Nijman, H., & Warren, J. (2005a). Adverse incidents, patient flow and nursing workforce variables on acute psychiatric wards: The Tompkins Acute Ward Study. *International Journal of Social Psychiatry*, 53(1), 75–84.
- Chou, K. R., Lu, R. B., & Mao, W. C. (2002). Factors relevant to patient assaultive behavior and assault in acute inpatient psychiatric units in Taiwan. *Archives of Psychiatric Nursing*, 16(4), 187–195.
- Cooper, C.L. & Swanson, N. (2002.). *Workplace violence in the health sector. State of the art*. Available: [http://www.ilo.org/public/english/dialogue/sector/papers/health state. PDF](http://www.ilo.org/public/english/dialogue/sector/papers/health%20state.pdf).
- Collins J. (1994). Nurses' attitudes towards aggressive behavior, following attendance of "The prevention and management of aggressive behavior program" *Journal of Advanced Nursing*, 20:117-131.
- Cox HC (1987) Verbal abuse in nursing: report of a study. *Nurs Manage* 18(11): 47 – 50.
- Cox H (1991) Verbal abuse nationwide, part I: oppressed group behavior. *Nurs Manage*. 22(3): 66 – 69
- Cox H (1991) Verbal abuse nationwide, part I: oppressed group behavior. *Nurs Manage*. 22(2): 32– 35
- Cox H (1991) Verbal abuse nationwide, part II: impact and modifications. *Nurs Manage*. 22(3): 66 – 69
- Duxbury J. (2002). An evaluation of staff and patient views of and strategies employed to manage inpatient aggression and violence on one mental health unit: a pluralistic design. *Journal of Psychiatric and Mental Health Nursing*. 9, 325 – 337.
- Duxbury J, Hahn S, Needham I, Pulsford D (2008). The Management of Aggression and Violence Attitude Scale (MAVAS): a cross-national comparative study. *J Adv Nurs* 62(5): 596–606.
- Farrell GA, Bobrowski C, Bobrowski P (2006). Scoping workplace aggression in nursing: findings from an Australian study. *J Adv Nurs* 55(6): 778–787.
- Fluttert F., Meijel B., Nijman H., Bjorkil S. & Grypdonck M., (2010). Preventing aggressive incidents and seclusions in forensic care by means of the 'Early Recognition Method'. *Journal of Clinical Research*. 19, 1529 – 1537. doi: 10.1111/j.1365-2702.2009.02986.x
- Foster C., Bowers L. & Nijman H. (2007). Aggressive behavior on acute psychiatric wards: prevalence, severity and management. *Journal of Advanced Nursing*, 58 (2). 140 – 149.
- Garcia, I., Kennett, C., Quraishi, M., & Durcan, G. (2005). *Acute Care 2004. A national survey of adult psychiatric wards in England*. London: Sainsbury Centre for Mental Health.
- Grassi, L., Biancosino, B., Marmai, L., Kotrotsiou, V., Zanchi, P., Peron, L., Marangoni, C., Vanni, A., & Barbui, C. (2006). Violence in psychiatric units: A 7-year Italian study of persistently assaultive patients. *Social Psychiatry and Psychiatric Epidemiology*, 41, 698–703.
- Guthrie, E., Tattan, T., Williams, E., et al (1999) Sources of stress, psychological distress and burnout in psychiatrists. *Psychiatric Bulletin*, 23, 207 – 212.
- Hahn S, Needham I, Abderhalden C, Duxbury JA, Halfens RJ (2006). The effect of a training course on mental health nurses' attitudes on the reasons of patient aggression and its management. *J Psychiatr Ment Health Nurs* 13(2): 197–204.
- Hamrin V, Iennaco J. & Olsen D. (2009). A review of ecological factors affecting inpatient psychiatric unit violence: implications for relational and unit cultural improvements. *Issues in Mental Health Nursing*. 30, 214 – 226.
- Healthcare Commission. (2005). *National Audit of Violence (2003–2005)*. London: Healthcare Commission. Available: <http://www.healthcarecommission.org.uk/assetRoot/04/01/74/51/04017451.pdf>.
- Johnson M.E. (2001). A model of de-escalation. Conference paper 2nd European Congress on Violence in Clinical Psychiatry. Stockholm, Sweden.
- Lanza M., Kayne H. L., Pattison I., Hicks C. & Islam S. (1994). Predicting violence: nursing diagnosis versus psychiatric diagnosis. *Nursing Diagnosis* 5(4), 151 – 157.
- Morrison, S. and Harris, D. (1995). Managing violence without coercion. *Archives of psychiatric nursing*. 9 (4):203-210.
- Mason, T & Chandley, M. (1999). *Managing violence and aggression: A manual for nurses and health care workers*. Churchill Livingstone: Edinburgh.
- McLaughlin S (2010) *An Investigation into Verbal Aggression on Student Nurses*. Unpublished thesis.
- Nau J, Dassen T, Halfens R, Needham I (2007) Nursing students' experiences in managing patient aggression. *Nurse Educ Today* 27(8):933-46
- Needham I, Abderhalden C, Zeller A, Dassen T, Haug HJ, Fischer JE, Halfens RJ (2005). The effect of a training course on nursing students' attitudes toward, perceptions of, and confidence in managing patient aggression. *J Nurs Educ*. 44(9): 415–20.
- Nijman H. L. I., Camp J. M., Ravelli D. P. & Merckelbach H. L. (1999). A tentative model of aggression on in-

- patient psychiatric wards. *Psychiatric Services*. 50, 832 – 834.
- Nijman H.L.I. (2002) A model of aggression in psychiatric hospitals. *Acta Psychiatrica Scandinavica* 106, 142 – 143.
- Paterson B, Leadbetter D, Miller G, Bowie V. (2008). Reframing the problem of workplace violence towards mental health nurses in the UK: a work in progress. In: Needham I, Kingman M, O'Brien-Pallas L, Tucker R, Oud N, eds. *Workplace Violence in the Health Sector*, Kavanah, Amsterdam.
- Rew M, Ferns T (2005). A balanced approach to dealing with violence and aggression at work. *Br J Nurs* 14 (4):227-32.
- Secker, J., Benson, A., Balfe, E., Lipsedge, M., Robinson, S., & Walker, J. (2004). Understanding the social context of violence and aggressive incidents on an inpatient unit. *Journal of Psychiatric and Mental Health Nursing*, 11, 172–178.
- Shepherd M. & Lavender T. (1999). in Rippon T.J. (2000) Aggression and violence in health care professions. *Journal of Advanced Nursing* 31, 452–460.
- Sheriden M., Henrion R & Baxter V. (1990). Precipitants of violence in a psychiatric in-patient setting. *Hospital Community Psychiatry* 41, 776–780.
- Spokes K, Bond K, Lowe T, Jones J, Illingworth P, Brimblecombe N, Wellman N (2002). HOVIS – the Hertfordshire/Oxford shire Violent Incident Study. *J Psychiatr Ment Health Nurs* 9 (2) 199–209.
- Steinert T., Wolfe M. & Gebhardt R.P. (2000). Measurement of violence during in-patient treatment and association with psychopathology. *Acta Psychiatry Scandinavica* 102, 107–112.
- Sukhodolsky, D., Cardona, L., & Martin, A. (2005). Characterizing aggressive and noncompliant behaviors in a children's psychiatric inpatient setting. *Child Psychiatry and Human Development*, 36(2), 177–193.
- Walsh B, Clarke E (2003) Post-trauma symptoms in health workers following physical and verbal aggression. *Work Stress* 17(2): 170–181
- Wells J, Bowers L (2002). How prevalent is violence towards nurses working in general hospitals in the UK? *J Adv Nurs* 39(3):230-40.
- Winstanley S., Whittington R. (2004). Aggression towards health care staff in a UK general hospital: variation among professions and departments. *Journal of Clinical Nursing*. 13(1), 3 – 10.
- Whittington, R. (2002). Attitudes toward patient aggression amongst mental health nurses in the 'zero tolerance' era: associations with burnout and length of experience. *Journal of Clinical Nursing* 11(6): 819–825.