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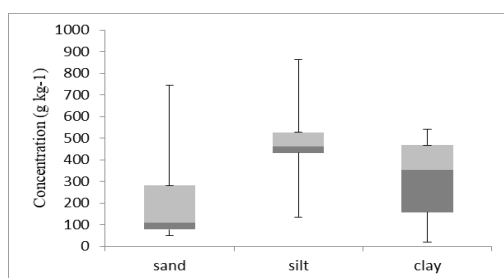
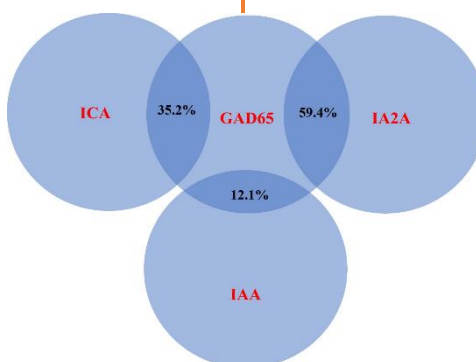
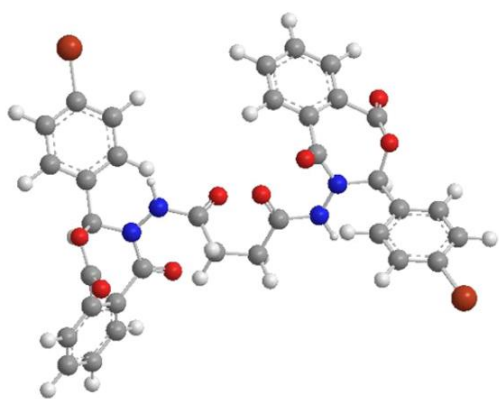
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## **An investigation into attitudes of nurses towards Patients' aggression in mental Health Hospitals in Sulaimani City \ Kurdistan -Iraq**

<sup>1</sup>Araz Mohammed Abdulkarim

*1 Department Psychiatric and Mental Health Nursing, College of Nursing, University of Sulaimani, Sulaimani, Kurdistan Region, Iraq*

\*Corresponding email: [araz.abdulkarim@univsul.edu.iq](mailto:araz.abdulkarim@univsul.edu.iq)

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### **Abstract+**

**Background:** Patients' aggression remains a challenging issue for nurses in mental health hospitals. Nurses' attitudes and perceptions toward aggression can be projected into management and level of care. Psychiatric patients require special care and require a positive attitude from nurses to reduce aggressive behaviors. **Objective:** This study aimed to describe attitudes among nurses towards patients' aggression. In addition to determine the difference in the attitude in regard to some variables among those nurses. **Materials and Methods:** Sixty nurses working in the two governmental mental hospitals in Sulaimani city, who met certain criteria were recruited for this cross-sectional study, using a convenience sampling technique. A self-reported questionnaire was developed and consisted of three parts, The sociodemographic characteristics, workplace environment, and the attitude toward aggression scale (ATAS), The scale consists of eight subscales of attitudes. The period of data collection started from January 2023 to May 2023. The collected data were statistically analyzed using SPSS- Version 22. **Results:** The overall average mean score of attitudes was determined ( $37.7 \pm 3.835$ ) in the acceptable-normal reaction attitude scale, which attributed to a highest mean score, which reflects a positive attitude. Followed by a violent reaction attitude scale ( $34.1 \pm 3.597$ ) viewing aggression as an assault reaction. In addition, nurses' scientific degrees in nursing education, age, gender, and ward-work unit were variables that significantly affect the differences in attitude ( $P$  value  $< 0.05, 0.01$ ). **Conclusions:** The findings entail that the nursing staff working in mental health hospitals in Sulaimani holds a positive-negative attitude toward patients' aggression, which may reflect the patient -centered nursing approach used by them.

## **Introduction**

Patient aggression is a significant concern in clinical practice, with a higher prevalence in psychiatric settings. It poses challenges for multidisciplinary teams and can cause physical and psychological harm to both staff and other patients [1, 2, 3]. Nurses, who have direct patient interaction, are more susceptible to being involved in aggressive incidents compared to other healthcare providers [4].

There is evidence linking serious mental disorders to aggressive and violent behavior, particularly in schizophrenia and other psychotic disorders [5]. The prevalence of violence among psychiatric in-patients varies between 6% and 35% [6], with nursing staff being victims of about two-thirds of recorded assaults [7]

Patients who engage in risk-prone behaviors, ranging from verbal aggression and abusive language to physical violence against objects and individuals, present a challenge to safety and well-being [8]. Nurses' perceptions of aggression vary, with some view it as dysfunctional and undesirable, while others see it as a functional and understandable phenomenon that is not entirely negative [9]. Some studies indicate that nurses consider patient aggression to be a normal occurrence that cannot be entirely prevented [10, 11]

Nurses' attitudes towards patient aggression can influence their perception and management of such behavior [12]. Positive attitudes from the mental health team, particularly nurses, are crucial when it comes to providing specialized care and treatment for psychiatric patients and reducing aggressive behavior [13]. However, some studies and literature reviews have found that psychiatric nurses tend to hold more negative attitudes towards aggression, which can result in the use of chemical and physical restraints [14, 15].

Tomga et al, [12] emphasize the importance of exploring nurses' interpretations and attributions regarding patient aggression, as these factors play a significant role in its management. Attitudes are critical in nursing and refer to individuals' tendencies, based on beliefs and experiences, to react and approach events in certain ways, while adhering personal values [16]. Understanding nurses' attitudes helps us comprehend how they perceive and prioritize aspects of care, determining what they consider as good, relevant, and appropriate [15]. Rischer identified six specific attitude skills that nurses need to develop clinical reasoning and provide quality nursing care: intent, tolerance for ambiguity, reflection, curiosity, self-confidence, and professional motivation [17].

In challenging healthcare settings, it is not uncommon for individuals to develop a negative attitude due to the physical and emotional difficulties they face. However, this negative attitude can contribute to a more stressful work environment [18]. Aggression in healthcare settings is associated with burnout, job dissatisfaction, increased rates of missed workdays, emotional exhaustion, anger, anxiety, and self-blame among nurses [19]. It also has implications for the quality of care provided. Mental health disorders are a significant health concern, including in Kurdistan region of Iraq, where studies on nurses' attitudes toward inpatient aggression have gained attention. However, limited data is available on nurses' attitudes towards patient aggression in mental health hospitals in Kurdistan of Iraq, and the influence of nurses' backgrounds and attitudes on patient aggressive behavior is not well understood. Understanding nurses' attitudes towards patient aggression can contribute effectively to the professional practice of mental health nursing.

This study aims to describe nurses' attitudes towards patient aggression in mental health hospitals. In addition, it seeks to determine how certain variables may cause differences in attitudes among nurses in Sulaimani City, Kurdistan region of Iraq.

## **Materials and methods**

### *Study design and setting:*

A quantitative design, descriptive survey study conducted at two governmental mental health hospitals named Shahid Hemin and Soz Hospital in Sulaimani City, Kurdistan, Iraq.

### *The Sample:*

#### *Sample size estimation:*

Based on G- power analysis method, (60) nurses are needed to achieve a medium effect size of 0.5-0.8 power, with 95% confidence intervals and a level of significance of 0.05.

#### *The Sample:*

Non -probability, convenience sampling technique was used to include (60) nurses that were working in Shahid Hemin and Soz mental health hospitals to participate in present study. The sample was chosen according to

certain inclusion criteria, the nurses who worked at hospitals for one year and more, and have direct contact with patients in hospital wards, and accepted to participate in this study. The nurses who worked in administration and outpatient units are excluded.

#### *The study Instrument:*

A questionnaire form was developed by the researcher based on the previous related studies used as an instrument tool to measure the variable underlining the present study. The questionnaire was translated into the Kurdish language through a forward-backward method. The content validity of the questionnaire was determined by five experts with related specialties. The reliability was applied by computation of Cronbach Alpha, and the result was (0.73) which indicates that the questionnaire is reliable as a tool for data collection, (P-value 0.01) level.

The questionnaire consists of three parts which included the following, part one includes items regarding the nurse's sociodemographic characteristics such as age, gender, and scientific degree of nursing education. part two is related to nurses' workplace environment including the ward-work unit, job stratification, and work shift. The last part consists of 47 item scale regarding the attitudes toward patients' aggression (ATAS-Colins, 1994) in nurses. The response option was measured using a 5- Point Likert scale from strongly agree (5) to strongly disagree (1). The ATAS is an outcome measured which contains eight subscales or domains toward aggression.

These are offensive attitudes (seeing aggression as hurtful and unacceptable behavior), communicative attitudes ( seeing aggression as a signal resulting from patients' powerlessness), destructive attitudes ( seeing aggression or threat as an act of physical harm), protective attitudes (aggression as shedding on defining of physical and emotional space), intrusive attitude ( seeing aggression as the expression to damage or injure others), acceptable normal reactional attitude (viewing aggression as normal reaction form patient because of this mental condition ), functional attitude (considering aggression as an opportunity to focus on the patient conditions), and the violent attitude (viewing aggression as assault reaction). This scale focuses on the attitudes of patient aggression in terms of interpretation of the functional or the intention of the behavior. The scale assesses the meaning nurses attribute to patients' aggressive behavior. The criterion mean score of the scale 30.1. A high score indicated a more negative view toward patient aggression. Earlier studies using Atas have reported internal consistency of the instrument (0.79) [25].

#### *Data Collection:*

The researcher identified the nurses according to the criteria of sample selection, then the information and purpose of the current study were explained by the researcher to a participant to determine their verbal informed consent. A total of 60 nurses filled out the study questionnaire during the period of data collection starting from January 2023 to May 2023.

#### *Ethical Approval:*

Ethical approval was obtained from the scientific committee of the Psychiatric and mental health nursing department, college of Nursing, and the ethical committee college of Medicine, University of Sulaimani. Also, permission was granted by Sulaimani general health directorate. Dignity, integrity, right to self-determination, privacy, and confidentiality of the personal information of the participants were considered. Participants were adequately informed of the aims, methods, any possible conflicts of interest, institutional affiliations of the researcher, the anticipated benefits and potential risks of the study, and the discomfort it may entail. The study's aims were explained to participants; also, participants have informed of the right to refuse to participate or withdraw consent to participate at any time without reprisal.

*Statistical Analysis:*

The collected data were analyzed using SPSS version 22. In coding, descriptive statistics including frequency and percentage mean and standard deviation were employed. The Cronbach’s Alpha coefficient test to estimate the reliability of the instrument. Additionally, to estimate the effectiveness of the attitude’s subscale regarding some nurse variables, T-test was utilized. In addition, G-power analysis approach was used to estimate sample size.

**Result**

The results in Table (1) show that most of the nurses (76.6%) were aged between 20-40 years. Regarding gender, females is the highest percentage which accounted 55.0%. The scientific degree of nursing education shows that the majority of studied participants have a Diploma in nursing (95.0%).

**Table 1:** Distribution of nurses' sociodemographic characteristics.

Sociodemographic characteristics	Frequency	Percentage %
<b>Age groups</b>		
20-40	46	76.6
41-61	12	20.0
≥ 62	2	3.3
<b>Gender</b>		
Male	33	55.0
female	27	45.0
<b>Scientific degree</b>		
Diploma	57	95.0
BSc	2	3.3
MSc	1	1.7
Total	60	100

Table 2 indicated the distribution of workplace characteristics of nurses. The studied nurses were distributed evenly in psychiatric units, and a high percentage of the nurses (36.7%) have worked in a female rehabilitation unit, regarding job satisfaction, the result revealed that a high percentage of the nurses (36.7%) have been unsatisfied, and the low percentage of the nurses (15.0%) responded naturally.

**Table 2:** Distribution of Nurses' workplace characteristics.

Workplace characteristics		Frequency	Percentage %
<b>Ward of work (Unit)</b>	Male admission unit	7	11.7
	Male rehabilitation unit	11	18.3
	Male chronic unit	9	15.0
	Female admission unit	1	1.7
	Female rehabilitation unit	22	36.7
<b>Work shift</b>	Morning	21	35.0
	All shift	39	65.0

<b>Job- Satisfied</b>	Satisfied	17	28.3
	Not satisfied	22	36.7
	Doesn't like to work in this hospital	12	20.0
	Neutral	9	15.0
<b>Total</b>		60	100.0

Table (3) shows the high mean value of attitude was related to acceptable reaction ( $\bar{X} = 37.7 \pm 3.835$ ) and violent reaction ( $\bar{X} = 34.1 \pm 3.597$ ) with high attribute effect, also the data appears that the lowest domain related to protective behavior ( $x 3.96 \pm 1.039$ ) had low attribute effect among nurses.

**Table 3:** Distribution of the nurse's attitudes in subscale by a total average mean score, standard deviation and level of effect.

No	Attitude Domains	Mean	Standard deviation std:	*Level of effect
1	Acceptable normal reaction	37.7	$\pm 3.833$	High
2	Violent reaction	34.1	$\pm 3.597$	High
3	Functional reaction	19.4	$\pm 1.971$	Low
4	Offensive behavior	27.08	$\pm 2.316$	Medium
5	Communicative behavior	23.03	$\pm 1.948$	Medium
6	Protective behavior	3.96	$\pm 1.039$	Low
7	Intrusive behavior	5.73	$\pm 1.039$	Low
8	Destructive behavior	4.45	$\pm 1.094$	Low

\*The criterion mean score of a 5-point Likert scale = 30.1

Table (4) shows that the high mean value of attitude was related to acceptable reaction ( $\bar{X} 41.0 \pm 1.41$ ) perceived by nurses with BSc in nursing which compared ( $37.105 \pm 3.857$ ) by nurses with a Diploma degree. The mean of violent reaction was high ( $34.140 \pm 3.636$ ) among nurses with diplomas which compare to the mean ( $33.5 \pm 3.535$ ) among nurses with BSc.

**Table 4:** Number, mean, and standard deviation of attitude toward aggression by the Nurse's scientific degree.

Scientific degree		Acceptable normal reaction	Violent reaction scale	Functional reaction scale	Offensive	Communicative	Protective	Intrusive
<b>Diploma</b>	Mean	37.1053	34.1404	19.2105	27.193	22.9474	3.9649	5.8246
	N	57	57	57	57	57	57	57
	Std. Deviation	3.85766	3.65688	1.83942	2.25546	1.94037	1.14899	0.98421
<b>BSc</b>	Mean	41	33.5	23	25	24	4	4
	N	2	2	2	2	2	2	2
	Std. Deviation	1.41421	3.53553	0	4.24264	1.41421	1.41421	0
<b>MSc</b>	Mean	39	33	23	25	26	4	4
	N	1	1	1	1	1	1	1
	Std. Deviation	.	.	.	.	.	.	.

Table (5) shows the difference between mean scores of attitude domains with nurses' socio-demographic characteristics. The results demonstrate that a statistically significant difference was found in function and protective domains mean scores with age groups. The acceptable domain with gender (P-value 0.05), and the protective domain with ward unit (P value < 0.001), but there was no statistically significant difference between the mean score of attitude domains with other variables.

**Table 5:** Difference in nurses' attitudes towards patient aggression by age, gender, ward unit, and work shifts variable

Attitude domains	Age		Gender		Ward Unit		Ward shift	
	ANOVA-test p-value		T-test	p-value	T-test	p-value	T-test	p-value
acceptable normal reaction	2.957	0.098	4.939	0.03	1.905	0.123	1.745	0.192
violent reaction	0.12	0.986	0.305	0.583	1.842	0.134	0.094	0.761
functional reaction behavior	8.955	0.004	3.419	0.07	2.56	0.049	0.007	0.935
Offensive behavior	6.095	0.017	0.751	0.39	0.741	0.568	0.372	0.544
Communicative behavior	0.859	0.358	2.671	0.108	1.781	0.146	0.032	0.858
Protective behavior	8.399	0.005	0.793	0.373	3.699	0.01	0.298	0.588
Intrusive behavior	0.753	0.389	1.447	0.234	1.516	0.21	0.011	0.918
Destructive behavior	0.654	0.398	1.744	0.23	1.426	0.22	0.011	0.821

## Discussions

Numerous studies have consistently shown that nurses in psychiatric settings are more prone to being involved in aggressive incidents with patients compared to other healthcare teams [1, 4, 20]. The perception of nurses towards patient aggression is closely linked to their attitudes, which can influence the management of such aggression [12]. The findings of a recent study revealed an overall average mean score indicating an acceptable normal reaction attitude towards patient aggression, while reflect a positive attitude ( $37.7 \pm 3.835$ ). The violent reaction attitude scale, which aggression is viewed as an assault reaction ( $34.1 \pm 3.597$ ), followed this. However, different studies have reported varying findings, which can be attributed to various external and internal factors, as well as cultural contexts [21].

The findings of present study align with previous research [22] found that nurses viewed aggression from patients as an acceptable and normal reaction due to their mental condition [23] reported that Australian nurses held positive attitudes toward aggression but were pessimistic about its management, perceiving it as inevitable in psychiatric settings. Whittington [24] highlighted problematic rather than therapeutic relationships in which certain staff members were prone to being assaulted [1] noted that many nurses tolerated patient aggression, considering it unavoidable, but acknowledged that it negatively impacted the quality of care.

However, the present study's findings differ from a study by Awawdeh [4], which showed that Palestinian mental health nurses predominantly perceived patient aggression as a destructive and violent reaction. Additionally, the findings contrast with those of Tomagová, [12] who found that nurses in the Slovak Republic viewed aggression as primarily offensive and destructive, holding negative attitudes. The positive and negative views toward patient aggression observed in this study may be influenced by the adoption of a person-centered approach among nurses.

The present study revealed that nurses with bachelor's and master's degrees in nursing had higher mean scores on the acceptable normal reaction attitude scale compared to nurses with a Diploma in nursing. This finding is consistent with the results of Awawdeh. Additionally, the study found that nurses with higher diplomas had higher mean scores on the violent reaction attitude scale compared to other nurses. These findings suggest that

nurses with higher levels of scientific education in nursing tend to exhibit more positive attitudes toward patient aggression, while nurses with lower levels of scientific education hold more negative attitudes toward patient aggression.

The study revealed statistically significant differences in attitudes towards aggression based on certain variables. Also, aggression was perceived as primarily protective and communicative Which Similar to the findings of Jansen et al., [22]. Additionally, significant differences were observed in the acceptable reaction attitude scale based on nurses' gender, indicating a higher agreement with positive attitudes among male nursing staff ( $F=5.5\%$ ). Moreover, there were significant differences based on age, with younger nurses exhibiting a higher agreement with positive attitudes ( $F=76.6\%$ ).

The finding of our study is consistent with a previous study by Awawdeh [4] reported that gender is associated with attitude toward aggression, and female nurses are more intimidated by verbal aggression than male nurses. Furthermore, the present study indicated there were no statistically significant differences between nurses' attitudes with other variables. In addition, Jansen et al. [22] suggest that in order to develop models for management of aggression it is important to know the significant domains in the attitude toward aggressive patients. The reasoned action model, the attitude towards patient is a predictor of behavior. In the context of aggression, the aggressive patient must be considered as the object, and the management of aggression by staff on the behavior to be a predictor based on the type of attitude.

### **Conclusions**

In conclusion, the study found that staff working in mental health hospitals in Sulaimani City holds positive-negative attitude towards inpatient aggression, which reflects the patient -centered nursing approach used by nurses. The nurses with bachelor's and master's degrees in nursing have a positive attitude, while nurses with diploma degrees agree to negative attitudes toward inpatient aggression. Furthermore, the study proved that there are differences in nurses' attitudes toward patient aggression regarding their age, gender, and ward work units in mental health hospitals.

### **Limitations**

The limitations considered in current study is about sampling, as the patients are homogenous and patients in the rehabilitation wards and hospitals are display aggressive behavior unlike patients in a cute unit ward. In addition, this study relied by one nurse with an MSc is bias in the nurse sample. Furthermore, analysis of some variables is not applied due to the small sub-sample size, thus limiting our ability to generalize the findings.

### **Recommendations**

There is a need for nursing training programs specific to de-escalation skills training programs that have a beneficial effect to control and reduce patients' aggression and improve patient care and may lead to changing attitudes in a positive direction. Furthermore, supporting, encouraging, and offering periodic rewards for the nurses who are working in mental health hospitals by the Ministry of Health seems important to conduct a future study in this area, regarding knowledge and practice in the management of patient aggression among nurses who are working in mental health hospitals.

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## Conflict of interest

The authors confirm that they are not affiliated with or involved in any organization or entity with financial interests.

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