



# Effect of Socio-Demographic Characteristics of Health Personnel Working in Emergency Medicine Clinic on Their Anger Styles and Aggression

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## Abstract

**Introduction:** The necessity of anger or aggression control of the emergency nurses and other health personnel might play an important role in reducing emergency violence. In the present study, we aimed to demonstrate the effect of socio-demographic characteristics of health personnel working in the emergency department (ED) on their anger and aggression levels.

**Methods:** Twenty-four health personnel of ED (20 nurses, 1 public health, 2 medical officer, and 1 ATT) voluntarily participated in the present study. A survey was conducted face-to-face with “Aggression Scale” forms. Researchers applied socio-demographic questions, “Constant anger-Anger Style Scale,” “Buss-Durkee Aggression Scale,” and “personal information form” to the health personnel working in ED. Analysis of the relationship between the variables in the study was analyzed by SPSS data method.

**Results:** The average age of the respondents was 29 years, 58% were women, and 41.7% were working for >7 years. A total of 50% worked 1-3 years in ED. They apply the most verbal attacks. Anger level showed no differences according to education levels ( $p>0.05$ ). Constant anger was high in the groups working <1 year, decreasing in subsequent years, and increasing after the 7<sup>th</sup> year ( $p=0.049$ ). Anger control was less in the first year but increased in subsequent years ( $p=0.052$ ). According to total working time, in the first year, constant anger, anger inward, and outward pulse were very high but in subsequent years decreased ( $p=0.0028$ ,  $p=0.0039$ , and  $p=0.0043$ , respectively). Anger control was high in the groups working <1 year, decreasing in subsequent years, and increasing after the 7<sup>th</sup> year ( $p=0.069$ ). Anger control was high in married and single workers than in divorced.

**Conclusion:** A proper assessment of the socio-demographic status of emergency health personnel would be useful in reducing violence in ED.

**Keywords:** Anger control, anger style, aggression, emergency violence

## Introduction

The execution and evaluation of anger or aggression controls of nurses and other health personnel working in the emergency services are important adjunct factors to reduce the violence in emergency services. The aim of the present study was to investigate the anger styles and aggression levels of health personnel working in emergency medicine clinics and to show the effect of sociodemographic characteristics on anger styles and aggression levels.

## Methods

This is a descriptive study. Twenty-four health personnel (20 nurses, 1 community health care personnel, 2 health officers, and 1 emergency medical technician) working in the emergency service voluntarily participated in the present study. Questionnaires consisting of sociodemographic questions organized by the researchers were individually applied using “Aggression Scale” and “Continuous Anger and Anger Type Scale” forms in the study.

“Continuous Anger and Anger Type Scale” was adapted to Turkish in 1994 by Özer. This test consists of 34 items. While the level of continuous anger is assessed using the first 10 items, the various anger styles (anger control subdimensions, anger introversion, and anger extroversion) of the individuals are evaluated with the next 24 items. High scores indicate that the anger level is high, high anger introversion scores indicate that the anger level is suppressed, and anger extroversion score values indicate that the anger level is easily abreacted. High control scores indicate that the anger level is easily overcome (1). The “Buss-Durkee Aggression Scale,” which was adapted to Turkish by Aşkın in 1981, was used in orphanages to measure the aggression level of adolescents (2). This test consisting of 48 items was evaluated over 36 items. A patient form was filled out by each registered volunteer and signed by the relevant investigator. Accuracy, completeness, legibility, and proper processing of all data were provided. The participants in the study were informed about the content of the study. Informed consents were obtained from the participants. The present study was carried out in accordance with the laws and regulations of Turkey and within the framework of the Declaration of Helsinki. Personal information forms containing sociodemographic

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This study was presented in 10<sup>th</sup> Trauma and Emergency Surgery Congress (October 28- November 01, 2015, Antalya, Türkiye).

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Received: 03.03.2016

Accepted: 01.10.2017

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characteristics, “Buss-Durkee Aggression Scale,” and “Continuous Anger-Anger Type Scale” were applied by the researchers through a face-to-face interview technique in the personnel working in the emergency medicine clinic.

**Statistical Analysis**

Data obtained from the study were analyzed using the SPSS (Statistical Package for Social Sciences) version 15.0 (SPSS Inc.; Chicago, IL, USA) software. Descriptive analyses, numerical and frequency distribution, mean±standard deviation (SD), chi-square test, and t-test were used as statistical methods

**Results**

In the present study, sociodemographic statuses (educational status, total working time, working time in our hospital, working time in the emergency service, gender, marital status, and average age) of 24 individuals are shown in Table 1. The average age of the respondents was 29 years, and 58% were women. It was found that 41.7% had been working for more than 7 years, and 50% had worked for 1-3 years in our hospital. Table 2 shows the comparison of the working duration in our hospital and anger levels. Continuous anger is high in those who worked in the emergency services for less than 1 year, decreases in the following years, and increases after the 7th year (p=0.049). Table 3 shows the aggression status of all health personnel, and verbal aggression is the most common. Table 4 shows the anger levels according to the total working time. While the anger control is low in the first year, it increases afterwards (p=0.052). When the total working time is considered, while anger introversion, anger extroversion, and continuous anger are high, they decrease over the years (p=0.0039, p=0.0043, p=0.0028, respectively), but anger control initially increases, decreases in the following years, and increases again (p=0.069). Table 5 shows the anger levels according to educational status. There was no difference in anger according to educational status (p>0.05). Table 6 shows the anger levels according to marital status. Anger control is higher in married and single individuals than in divorced ones. Table 7 shows the distribution of “Continuous Anger” and “Anger Expression Style Scale.”

**Discussion**

Violence is the verbal threat, physical assault, or sexual harassment that are applied by the patients, relatives, or third parties, posing a risk to health workers (3). In recent years, it is observed that violence against health workers has increased to a great extent, and measures taken to prevent it are insufficient (4, 5).

Health workers are exposed to violence 16 times more (6). In a study conducted in our hospital, 100% of those working in the emergency service were exposed to verbal attacks and 87% to physical attacks in the last 1 year. Only 40% of those who were exposed to assault called

the police once, and 27% of them ended up in court. All health workers are worried in the emergency service and believe that they should be trained for the measures to be taken against existing assaults (7).

There are many studies on violence. The vast majority of them are performed to determine the situation. However, few of these studies are related to the cause and prevention of violence. More studies should be conducted to help prevent violence.

**Table 1. Sociodemographic characteristics of health workers**

OCCUPATION	n	%
Health Officer	2	8.3
Nurse	20	83.3
Community Health Care personnel	1	4.2
EMT	1	4.2
<b>EDUCATION</b>		
High school	9	37.5
Associate Degree	5	20.8
Bachelor's degree	8	33.3
Master's degree	2	8.3
<b>TOTAL WORKING DURATION</b>		
Less than 1 year	3	12.5
1-3 years	4	16.7
4-6 years	7	29.2
7 years and over	10	41.7
<b>IEAH WORKING DURATION</b>		
Less than 1 year	4	16.7
1-3 years	1	4.2
4-6 years	11	45.8
7 years and over	5	20.8
<b>WORKING DURATION IN EMERGENCY SERVICE</b>		
Less than 1 year	5	20.8
1-3 years	12	50.0
4-6 years	5	20.8
7 years and over	2	8.3
<b>GENDER</b>		
FEMALE	14	58.3
MALE	10	41.7
<b>MARITAL STATUS</b>		
MARRIED	10	41.7
SINGLE	11	45.8
DIVORCED	3	12.5
Total	24	100.0
Ort: ortalama; SS: Standart sapma		

**Table 2. Comparison of the working duration and anger in our hospital**

The duration of working in the emergency service of our hospital	Continuous anger (10 items) Mean±SS	Anger introversion (8 items) Mean±SS	Anger introversion (8 items) Mean±SS	Anger control (8 items) Mean±SS
Less than 1 year	22.6±6.42	21+3.39	18.6± 4.16	26+3.46
1-3 years	19.09±4.86	15.72±3.58	15.27+ 3.19	19.54±3.88
4-6 years	20.40±5.68	17.4±3.36	17.4±4.93	24±1.22
7 years and over	23.33±3.51	21.33±1.52	19.33±3.51	22.33±3.05
	p=0.049	p=0.985	p=0.781	p=0.052

It has been found in a study that 78% of health professionals consider the first three reasons for the increase of violence; they are economic troubles, sociocultural problems, and level of education of the society (8).

Unfortunately, in many studies investigating the causes of violence, the subject of "Characteristics of Health Workers Exposed to Violence" was underestimated. If a general description is made, the weak, young, inexperienced, and worried-looking women face more violence. The order of frequency for the exposure to violence is nurse, general practitioner, specialist physician, and other staff (9). For this reason, we also selected a group in which 58% of them consisted of women exposed to violence and 83% of nurses, most of whom were working in the emergency services. Presumably since we are exposed to verbal aggression the most, verbal attack was observed most frequently in our study, while the aggression level was found to be normal.

A study has revealed that there is a serious association between physical attacks and gender, level of education, duties, and work-

ing in the emergency service. Male personnel are more exposed to physical attacks than women (47.3% vs 33.6%). The rate of exposure to physical violence is lower in university graduates ( $p < 0.0001$ ) (10).

There are many studies that indicate that violence is related to educational level. Although there are studies indicating that there is an inverse relationship between the level of education of nurses and the exposure to violence, there is no significant difference between the level of education and the exposure to violence in a previous study (11). In another study involving 10 European countries, it has been shown that lower levels of education lead to more exposure to violence (12). In yet another study, verbal sexual harassment and physical assault were not observed in nurses with higher educational level, whereas verbal abuse in nurses with an associate degree and physical violence in health vocational high school graduates were more frequent (13). In our study, we investigated the causes of violence rather than the exposure to violence and anger control. However, in our study, education did not show any difference in the severity and control of anger.

**Table 3. Aggression statuses of all health workers are observed**

Aggression scale	n	Minimum	Maximum	Mean	SD
Attack aggression	24	25.00	42.00	31.46	4.40
Indirect aggression	24	27.00	44.00	32.08	4.15
Angry aggression	24	28.00	50.00	36.71	5.95
Negative aggression	24	15.00	30.00	22.13	3.60
Verbal aggression	24	10.00	50.00	35.42	7.16

**Table 4. Anger levels according to total working time**

Total working time	Continuous anger (10 items)	Anger introversion (8 items)	Anger extroversion (8 items)	Anger control (8 items)
	Mean±SD	Mean±SD	Mean±SD	Mean±SD
Less than 1 year	26±6.08	21.66±2.30	21.00±3.46	24.67±2.89
1-3 years	17.75±3.94	17.5±5.68	15.25±4.35	20.75±4.65
4-6 years	22±4.79	15.71±4.34	16.14±4.85	20.29±2.63
7 years and over	19.2±4.84	18.4±2.59	16.90±2.77	23.30±4.74
	p=0.028	p=0.039	p=0.043	p=0.068

**Table 5. Anger levels according to educational status**

Education		Minimum	Maximum	Mean	SD
Bachelor's degree	Continuous anger (10 Items)	16.00	33.00	22.13	6.27
	Anger introversion (8 items)	14.00	24.00	19.63	3.54
	Anger extroversion (8 items)	15.00	26.00	18.50	3.70
	Anger control (8 Items)	19.00	28.00	23.75	2.60
High school	Continuous anger (10 Items)	10.00	26.00	20.22	5.12
	Anger introversion (8 items)	11.00	23.00	17.56	4.59
	Anger extroversion (8 items)	11.00	25.00	17.00	3.94
	Anger control (8 Items)	16.00	31.00	21.56	5.27
Associate degree	Continuous anger (10 Items)	13.00	27.00	19.60	5.18
	Anger introversion (8 items)	12.00	21.00	16.80	3.70
	Anger extroversion (8 items)	11.00	23.00	15.40	4.62
	Anger control (8 Items)	15.00	25.00	21.40	4.34
Master's degree	Continuous anger (10 Items)	18.00	20.00	19.00	1.41
	Anger introversion (8 items)	14.00	16.00	15.00	1.41
	Anger extroversion (8 items)	13.00	15.00	14.00	1.41
	Anger control (8 Items)	18.00	23.00	20.50	3.54

**Table 6. Anger levels according to marital status**

Marital status		Avg	SD
Single	Continuous anger (10 Items)	20.90	6.26
	Anger introversion (8 items)	17.90	4.23
	Anger extroversion (8 items)	17.60	4.72
	Anger control (8 Items)	23.60	2.32
Married	Continuous anger (10 Items)	20.64	3.50
	Anger introversion (8 items)	18.36	3.70
	Anger extroversion (8 items)	16.55	3.75
	Anger control (8 Items)	22.27	4.88
Divorced	Continuous anger (10 Items)	19.67	8.50
	Anger introversion (8 items)	16.00	5.00
	Anger extroversion (8 items)	16.00	1.73
	Anger control (8 Items)	17.00	1.00

Avg: average; SD: standard deviation

**Table 7. Distribution of the scores of Anger and Anger Expression Style Scale**

	Avg.	SD	Range
Continuous anger (10 Items)	20.63	5.21	12-38
Anger introversion (8 items)	17.88	3.96	8-30
Anger extroversion (8 items)	16.92	3,93	9-30
Anger control (8 Items)	22.17	4.11	9-32

Avg: average; SD: standard deviation

In many studies, the experiences of workers have been taken into account as the cause of violence. In some studies, exposure to violence has been observed as more frequent in those working for 5-10 years, and it is higher in the first 5 years in some studies (9, 14). We have reached important findings about the experience of workers in this study. Continuous anger is high in those working in the emergency service for less than 1 year, decreases in the following years, and increases after the 7<sup>th</sup> year ( $p=0.049$ ). While the anger control is low in the first year, it increases afterwards ( $p=0.052$ ). When the total working time is considered, while anger introversion, anger extroversion, and continuous anger are high, they decrease over the years ( $p=0.0039$ ,  $p=0.0043$ ,  $p=0.0028$ , respectively), but anger control initially increases, decreases in the following years, and increases again ( $p=0.069$ ). It has also been found that married and single individuals have more anger control than divorced ones; this has not been investigated so far.

In the studies to prevent violence, it has been pointed out that preventive measures taken by the health institution, effective management of violence incidents, conducting protective and preventive studies considering the issues leading to violence, and training the health personnel in terms of risk prediction and coping make it possible to reduce violence (15, 16).

## Conclusion

In order to prevent violence in the emergency services, precautions must be taken in advance, considering many factors. The most important and ignored of these factors is the sociodemo-

graphic statuses of those who work in the emergency services. In the present study, it has been concluded that the assessment of the sociodemographic statuses of health workers will be beneficial to reduce violence in the emergency services.

**Ethics Committee Approval:** Ethics committee approval was received for this study from from Istanbul Training and Research Hospital's Ethics Committee.

**Informed Consent:** Informed consent was obtained from the patients who participated in this study.

**Peer-review:** Externally peer-reviewed.

**Author Contributions:** Concept - S.K., M.K.D., A.A., Ö.A., Y.M.T.; Design - S.K., M.K.D., A.A.; Supervision - S.K., M.K.D., A.A., Ö.A., Y.M.T.; Resource - S.K., M.K.D., A.A.; Materials - S.K., M.K.D.; Data Collection and/or Processing - S.K., M.K.D., A.A.; Analysis and/or Interpretation - S.K., M.K.D., A.A.; Literature Search - S.K., M.K.D., A.A., Ö.A., Y.M.T.; Writing - S.K., M.K.D., A.A.; Critical Reviews - S.K., M.K.D., A.A., Ö.A., Y.M.T.

**Conflict of Interest:** The authors have no conflict of interest to declare.

**Financial Disclosure:** The authors declared that this study has received no financial support.

## References

- Savaşır I, Şahin NH. Bilişsel-davranışçı terapilerde değerlendirme: Sık kullanılan ölçekler. Ankara: Türk Psikologlar Derneği Yayınları;1997.
- Aşkın, M "Bazı Kişilik Değişkenlerinin Kültürlerarası SosyalPsikolojik Açından İncelenmesi". Atatürk Üniversitesi Sosyal Bilimler Enstitüsü, Doçentlik Tezi. 1981.
- Saines JC. Violence and aggression in A&E: recommendations for action. *Accid Emerg Nurs* 1999; 7: 8-12. [CrossRef]
- Ölmezoğlu ZB, Vatanserver K, Ergör A. İzmir metropol alanı 112 çalışanlarında şiddet maruziyetinin değerlendirilmesi. *Toplum ve Hekim* 1999; 14: 420-5.
- Williams ML, Robertson K. Workplace violence. Prevalence, prevention, and first-line interventions. *Crit Care Nurs Clin North Am* 1997; 9: 221-9.
- Elliott PP. Violence in health care. What nursemanagers need to know. *Nurs Manage* 1997; 28: 38-41. [CrossRef]
- Aren A, Başak F, Çelik G, Güneş ME, Sevinç MM, Kınacı E. Acil sağlık çalışanlarına saldırı ve şiddet *Tıp Hukuku Dergisi* 2013; 3: 1-10.
- Aydın M. Isparta-Burdur sağlık çalışanlarına yönelik şiddet ve şiddet algısı. *Türk Tabipleri Birliği, Isparta-Burdur Tabip Odası Başkanlığı Yayını*; 2008.
- Ayrancı U, Yenilmez C, Balci Y, Kaptanoğlu C. Identification of violence in Turkish health care settings. *J Interpers Violence* 2006; 21: 276-96 [CrossRef]
- Talas MS, Kocaöz S, Akgüç S. A Survey of Violence Against Staff Working in the Emergency Department in Ankara Turkey. *Asian Nurs Res* 2011; 5: 197-203. [CrossRef]
- Büyükbayram A, Okçay H. Sağlık Çalışanlarına Yönelik Şiddeti Etkileyen Sosyo-Kültürel Etmenler *Psikiyatri Hemşireliği Dergisi* 2013; 4: 46-53.
- Estryn-Behar M, van der Heijden B, Camerino D, Fry C, Le Nezet O, Conway PM, et al. Violence risks in nursing-results from the European 'NEXT' Study. *Occup Med (Lond)* 2008; 58: 107-14. [CrossRef]
- Şahin B, Gaygısız Ş, Balci FM, Öztürk D, Sönmez MB, Kavalcı C. Yardımcı acil sağlık personeline yönelik şiddet. *Türkiye Acil Tıp Dergisi* 2011; 11: 110-4.
- Barlow CB, Rizzo AG. Violence against surgical residents. *West J Med* 1997; 167: 74-8.
- Flannery RB, Hanson MA, Penk WE. Risk factors for psychiatric inpatient assaults on staff. *J Ment Health Adm* 1994; 21: 24-31. [CrossRef]
- Whittington R, Wykes T. An evaluation of staff training in psychological techniques for the management of patient aggression. *J Adv Nurs* 1996; 5: 257-61. [CrossRef]

**Cite this article as:** Kayalı S, Kurt Durmuş M, Aren A, Akça Ö, Tan YM. Effect of Socio-Demographic Characteristics of Health Personnel Working in Emergency Medicine Clinic on their Anger Styles and Aggression. *Istanbul Med J* 2018; 19: 18-21.