

RESEARCH ARTICLE

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Exposure of Violence and its Effects on Health Care Workers

ABSTRACT

Objective: The aim of this study is to examine the frequency of violence that the healthcare workers of Düzce University Research and Practice Hospital encountered, situations that cause violence, post-violence attitude and the effects of violence on the personnel, and to evaluate the relationship between violence and the burnout levels of the healthcare workers.

Methods: This descriptive cross-sectional study was conducted on the physicians and nurses working in different departments at Düzce University Research and Application Hospital, between October 2020 and February 2021. A questionnaire form consisted of 24 questions including demographic information and questions about working conditions and violence and Maslach Burnout Scale consisting of 22 questions were applied to the participants.

Results: The frequency of the participants being exposed to violence throughout their professional life was found 74.4%. The most common type of violence was psychological violence (92.7%). Exposure to physical violence was more common among male healthcare workers (22.7%) ($p < 0.001$). It was found that the rate of exposure to violence increased as the time spent in the profession, the average number of duty shifts, and the number of patients examined daily increased ($p < 0.05$). Swearing and insult were the most common types of violence exposed (71.1%). In the comparison of the exposure to violence and sub-dimensions of burnout scale, it was found that "Emotional exhaustion" and "Depersonalization" subscale scores of those who were exposed to violence were significantly higher than those who were not ($p = 0.005$).

Conclusions: Violence in the health sector is a serious problem that decreases the motivation of healthcare workers and causes mental, emotional and physical problems. In order to deal with this problem, instead of ignoring the problem, we need to reveal the violence and its destructive effects through more comprehensive studies.

Keywords: Healthcare Workers, Violence, Burnout

Sağlık Çalışanlarında Şiddet Maruziyeti ve Şiddetin Çalışanlar Üzerindeki Etkileri

ÖZET

Amaç: Bu çalışmanın amacı Düzce Üniversitesi Araştırma ve Uygulama Hastanesi hekim ve hemşirelerinin şiddete uğrama sıklığı, şiddete neden olan durumlar, şiddet sonrası tutum ile şiddetin etkilerini incelemek, çalışanların tükenmişlik düzeylerini ölçerek şiddetle ilişkisini değerlendirmektir.

Gereç ve Yöntem: Tanımlayıcı kesitsel özellikte olan araştırmamız Ekim 2020-Şubat 2021 tarihleri arasında Düzce Üniversitesi Araştırma ve Uygulama Hastanesinde farklı bölümlerde çalışan hekim ve hemşirelerle yürütülmüştür. Çalışmada anket yöntemi kullanılmış olup, demografik bilgiler, çalışma koşullarıyla ilgili sorular ve son olarak şiddetle ilgili soruların olduğu 24 sorunun ardından, 22 soruluk Maslach Tükenmişlik Ölçeği ile birlikte toplam 46 soru yöneltilmiştir.

Bulgular: Araştırmamızda katılımcıların meslek hayatları boyunca şiddete uğrama sıklığı %74,4 bulunmuştur. En sık maruz kalınan şiddet türü %92,7 ile psikolojik şiddet olmuş, fiziksel şiddete maruziyet erkek cinsiyette (%22,7) daha sık rastlanmıştır ($p < 0,001$). Meslekte geçirilen süre ve tutulan ortalama nöbet sayısı günlük bakılan hasta sayısı arttıkça şiddet maruziyetinin de arttığı saptanmıştır ($p < 0,05$). Maruz kalınan şiddet türünde en fazla küfür hakaret (%71,1) yanıt alınmıştır. Kişilerin şiddet maruziyeti ile tükenmişlik alt boyutları karşılaştırıldığında; şiddete maruz kalanların "Duygusal tükenme" ve "Duyarsızlaşma" alt ölçek puanları maruz kalmayanlardan anlamlı derecede yüksektir ($p = 0,005$).

Sonuç: Sağlık sektöründe şiddet çalışanların motivasyonunu azaltan, ruhsal, duygusal ve fiziksel sorunlara yol açan ciddi bir sorundur. Bu sorunla başa çıkmak için sorunu göz ardı etmek yerine daha kapsamlı çalışmalar ile şiddeti ve şiddetin yıkıcı etkisi gözler önüne sermeliyiz.

Anahtar Kelimeler: Sağlık Çalışanları, Şiddet, Tükenmişlik

INTRODUCTION

Labor life is one of the areas where violence is frequently encountered. Violence in the workplace is defined as “physical or psychological assault of the employee by a person or a group, while performing his / her duty” (1). The health sector is one of the sectors in which violence is common in working life (2). Studies show that, health care workers are at higher risk of being exposed to violence than employees in other sectors (3, 4). Violence in healthcare institutions is described as “psychological, physical and sexual assault, generally created by the patients and their relatives, harmful to the physical and mental health of the healthcare worker”(5). Being exposed to violence disturbs the physical, psychological and social wellbeing of the healthcare worker, increases long-term stress, depression and anxiety levels as well as short-term effects, and causes burnout (6-8). It has been noted that although being exposed to violence is more common in the healthcare, the rate of reported cases of violence remained lower. The reason for this is that while serious situations involving injury are perceived as violence, the other types of violence are ignored (9).

When studies on violence against healthcare professionals are examined, emergency departments are the first places where violence occurs and followed by psychiatry clinics (10,11). The most important reasons for the high prevalence of violence in emergency services include, frequent admission of the patients with drug addiction, substance use, and alcohol problems, providing health service 24-hours, being the place of first intervention for patients with critical conditions, and the burden of anxiety on the workers and patients due to the working conditions in the emergency departments. The deaths in the emergency departments can be evaluated to occur due to inadequate treatment, by the relatives of the patients. Patients and their relatives may hold emergency department personnel responsible for this whole process and tend to become aggressive (12).

Frequency and type of violence in the field of healthcare may vary depending on the department and position of the healthcare worker. Although the rates of being exposed to verbal violence were similar for doctors and nurses, it was observed that nurses were exposed to physical, sexual and psychological violence more frequently (13). In some studies, it has been suggested that healthcare workers in the surgical branches are exposed to violence more frequently compared to the internal branches (14,15).

A number of psychological interactions including confusion, anger, relentlessness, insecurity, burnout, and self-blame can be observed in the healthcare workers who are subjected to violence (16). In addition, healthcare workers who are exposed to physical violence may experience

post-traumatic stress disorder and the quality of the service provided to the patients may decrease consequently (17, 18).

The aim of this study is to examine the frequency of violence that the healthcare workers of Düzce University Research and Practice Hospital encountered, situations that cause violence, post-violence attitude and the effects of violence on the personnel, and to evaluate the relationship between violence and the burnout levels of the healthcare workers.

MATERIAL AND METHODS

This study was designed as a descriptive cross-sectional study and conducted between October 2020 and February 2021. Data were collected by applying a questionnaire from the physicians and nurses working in Düzce University Research and Application Hospital. The universe of the study is 604 healthcare workers, including 292 physicians and 312 nurses, meeting the inclusion criteria. The sample size was determined to include approximately 250 individuals for a 95% confidence level, 5% margin of error, and 50% survey response rate.

Data Collection Tools: In order to collect data suitable for the aims of the study, a questionnaire form was prepared by the researcher in line with the literature and developed by consulting the expert opinion. A pilot questionnaire application was applied to a group of 15 people before the study started. After this pilot study, the questions in the questionnaire form were finalized in terms of content and form.

Maslach Burnout Scale: Maslach Burnout Scale was developed by Christina Maslach, Susan E. Jackson and Cary Cherniss and used to determine the extent of burnout experienced by individuals working in professions involving intensive human relations. The scale consists of three sub-dimensions and a total of 22 questions. The emotional burnout sub-dimension evaluates the level of burnout experienced due to job and includes 9 questions. The depersonalization sub-dimension evaluates the rigid, indifferent and emotionless attitudes towards the work and people and includes 5 questions. The personal success sub-dimension evaluates the ability to cope with the problems experienced and the feelings of success and sufficiency and includes 8 questions (19). The higher scores of emotional burnout and depersonalization sub-scales and lower scores of personal achievement subscale indicate a high level of burnout.

Statistical Analysis: The data were evaluated by using SPSS (version 22.0) statistical package program. Descriptive statistics were expressed as mean± standard deviation, median, interquartile range, and percentage where appropriate. The assumptions of normality of

quantitative variables and homogeneity of variances were examined by Shapiro-Wilk and Levene tests, respectively. In the comparisons between groups, Mann Whitney U test was applied considering the conditions of providing the assumptions. The relationships between quantitative variables were evaluated by the Spearman correlation coefficient. The relationships between categorical variables were examined by Pearson's Chi-square and Fisher's Exact test. A value of $p < 0.05$ was accepted as statistically significant.

RESULTS

In this study, 190 doctors (53.4%) and 166 nurses (46.6%) working in Düzce University Research and Application Hospital were included. Thirty-eight of the doctors were faculty members and 152 were research assistants. The mean age of the participants was 31.5 ± 7.1 (19 -72) and 185 (52%) participants were under 29 years of age, 120 (33.7%) were between 30 and 39 years of age, and 51 (14.3%) were 40 years of age and older. The rate of female participants was 56.5% and the rate of males was 43.5%, while 57.3% were married and 47.2% were single.

There were no statistically significant differences between the participants' exposure to violence throughout their professional life according to gender, age, task distribution, and working in internal medicine or surgery branches ($p > 0.05$).

Participants' exposure to violence according to age, gender, duty and branch distribution is shown in Table 1.

The frequency of the participants being exposed to violence throughout their professional life was found to be 74.4%. The most common type of violence was psychological violence (92.7%), while exposure to physical violence was more common in men (22.7%) ($p < 0.001$). When the participants who were subjected to violence were evaluated, we found that 94 (88.7%) of the research assistants, 29 (93.5%) of the faculty members, and 118 (92.2%) of the nurses had been exposed to verbal violence. Considering the physicians working in internal branches ($n = 90$) and surgical branches ($n = 47$) who were exposed to violence, 77 (85.6%) of those working in internal branches and 46 (97.9%) of those working in surgical branches had been exposed to verbal violence. The rate of exposure to verbal violence was significantly higher in those working in surgical branches compared to those working in internal medicine ($p = 0.034$).

It was found that the exposure to violence increased as the time spent in the profession ($r = 0.171$ $p = 0.005$) and the average number of duties ($r = 0.209$ $p = 0.001$) increased. Considering the most common type of violence exposed, we found that healthcare workers were exposed to swearing and insult (71.1%) with the highest rate.

Table 1. The distribution of exposure to violence of the participants according to age, gender, duty and branches

| | | I had been exposed to violence | | I had not been exposed to violence | | p |
|---------------|--------------------|--------------------------------|------|------------------------------------|------|-------|
| | | n | % | n | % | |
| Gender | Female | 155 | 77.1 | 46 | 22.9 | 0.222 |
| | Male | 110 | 71.4 | 44 | 28.6 | |
| Age | ≤ 29 | 131 | 71.2 | 53 | 28.8 | 0.280 |
| | 30-39 | 95 | 79.2 | 25 | 20.8 | |
| | ≥40 | 39 | 76.5 | 12 | 23.5 | |
| Duty | Research assistant | 106 | 70.2 | 45 | 29.8 | 0.215 |
| | Faculty member | 31 | 81.6 | 7 | 18.4 | |
| | nurse | 128 | 77.1 | 38 | 22.9 | |
| Branch | Internal medicine | 90 | 69.8 | 39 | 30.2 | 0.220 |
| | Surgery | 47 | 78.3 | 13 | 21.7 | |

When the mean scores of the Maslach Burnout Scale were examined, it was found that the mean score of "Emotional Exhaustion" sub-dimension was 18.2 ± 8.7 points, the mean score of "Depersonalization" subdimension was 6.5 ± 4.2 points, and the mean score of "Personal Achievement" subdimension was 21.8 ± 5.4 points. When the mean sub-dimension scores of Maslach Burnout Scale are compared according to the being exposed to violence, a significant difference was found in terms of the mean scores of "emotional exhaustion" and

"depersonalization" sub-dimensions ($p < 0.05$), while there was no significant difference in terms of "personal accomplishment" subscale score ($p > 0.05$). The "emotional exhaustion" and "depersonalization" subscale scores of those who were exposed to violence were significantly higher compared to those who were not exposed to violence.

Descriptive statistics and comparisons of sub-dimension scores of Maslach Burnout Scale according to being exposed to violence are given in Table 2.

Table 2. Descriptive statistics and comparisons of sub-dimension scores of Maslach Burnout Scale according to being exposed to violence

| | Exposure to violence | | | | | | P |
|----------------------|----------------------|--------------|----------|----------|--------------|----------|--------------|
| | Yes | | | No | | | |
| | Mean±SD | Median (IQR) | MeanRank | Mean±SD | Median (IQR) | MeanRank | |
| Emotional exhaustion | 19±8.2 | 18(12) | 187.0 | 15.8±9.8 | 15.5(16) | 151.6 | 0.005 |
| Depersonalization | 6.9±4.2 | 6(6) | 186.2 | 5.4±4.1 | 5 (7) | 151.5 | 0.005 |
| Personal Achievement | 21.7±5.4 | 22(8) | 174.9 | 22.3±5.3 | 22 (7) | 185.2 | 0.411 |

SD: StandardDeviation, IQR: InterquartileRange

We found that mean score of personal achievement sub-dimension was statistically significantly higher in males compared to females ($p < 0.05$), there were no significant differences in terms of the mean scores of emotional exhaustion and depersonalization sub-dimensions ($p > 0.05$). When the scores of physicians working in internal and surgical branches are compared, emotional exhaustion and depersonalization sub-dimension scores of physicians working in surgical branches

were significantly higher compared to those working in internal medicine branches ($p < 0.05$). However, there is no significant difference between the physicians in terms of personal achievement sub-dimension scores, according to the branches they worked ($p > 0.05$).

Descriptive statistics and comparisons of sub-dimension scores of Maslach Burnout Scale according to gender and working in internal or surgery branches are given in Table 3.

Table 3. Descriptive statistics and comparisons of scores of sub-dimensions of Maslach Burnout Scale, according to gender and working in internal or surgery branches

| | Gender | | p | Branch | | p |
|----------------------|------------------------|------------------------|--------------|-----------------------|-------------------------|--------------|
| | Female | Male | | Internal medicine | Surgery | |
| Emotional exhaustion | 18.4±8.5* | 17.9±9.1* | 0.604 | 17.2±8.3* | 19.47±7.7* | 0.040 |
| Depersonalization | 18 [13] [#] | 18 [14] [#] | | 16 [11] [#] | 20 [10.5] [#] | |
| Emotional exhaustion | 6.3±4* | 6.8±4.5* | 0.407 | 6.4±4* | 8.1±4.4* | 0.012 |
| Depersonalization | 6 [6] [#] | 6 [7] [#] | | 6 [6] [#] | 8 [7] [#] | |
| Emotional exhaustion | 21.2±5.3* | 22.5±5.4* | 0.027 | 21.8±5* | 22.2±5.9* | 0.556 |
| Depersonalization | 21 [7] [#] | 21 [9] [#] | | 21 [7] [#] | 22.5 [8.5] [#] | |
| | 167.4 ^{&} | 191.7 ^{&} | | 93.9 ^{&} | 99 ^{&} | |

*Mean±SD, # Median [InterquartileRange], &MeanRank

When the emotional exhaustion sub-dimension scores are compared according to type of violence exposed, there was no significant difference between the mean scores of “emotional exhaustion” sub-dimension of those who were exposed to verbal violence and those who did not ($p > 0.05$), whereas the mean scores of those who were exposed to physical violence and threat were found to be significantly higher ($p < 0.05$). It was found that 109 (%41.1) of the participants who were exposed to violence had lodged a complaint to proper authorities, whereas 156 (%58.9) did not lodge any complaint. The details of the process of lodging a complaint and reasons why the participants did not make any complaint despite the violence they were subjected to are shown in Table 4.

DISCUSSION

Three quarters of the participants in our study state that they have been exposed to violence at least once in their professional life. In studies conducted in our country, the rates of exposure to violence among healthcare workers are variable. In a study conducted by Eskişehir-Bilecik Medical Association, on 1,071 healthcare workers working in Ankara, Eskişehir and Kütahya, in 2002, it was reported that 50.8% of the healthcare workers were subjected to violence at least once in their professional life (20). In a multi-center study conducted in Sivas city center, the rate of exposure of healthcare workers to violence at least once during their professional life was found to be 95.51% (21).

Table 4. Evaluation of the process of lodging a complaint after being exposed to violence

| | | n | % |
|----------------------------------------------------------|----------------------------------------------|-----|------|
| Have you even lodged a complaint? | Yes | 109 | 41.1 |
| | No | 156 | 58.9 |
| If you did not lodge a complaint, what is the reason? | Disregarding, taking it in stride | 26 | 16.8 |
| | Fear of negative consequences | 14 | 9 |
| | Not expecting any results | 106 | 68.4 |
| | Being the one been complained about violence | 1 | 0.6 |
| | Other ** | 8 | 5.2 |
| If you lodged a complaint, what action was taken? | No action was taken | 30 | 27.3 |
| | The insulter apologized | 9 | 8.2 |
| | The insulter was removed by security | 14 | 12.7 |
| | An investigation was conducted | 57 | 51.8 |
| | No result was achieved | 13 | 22.8 |
| | The insulter paid compensation | 8 | 14 |
| | Disciplinary penalty was imposed | 4 | 7 |
| If an investigation was conducted, how did it resulted? | Penalty was suspended | 9 | 15.8 |
| | In progress / not yet concluded | 8 | 14 |
| | The insulter was sentenced to prison | 4 | 7 |
| | Nonsuited | 11 | 19.3 |

* More than one option has been marked in this question. ** Other reasons are workload, not having time, too many procedures, and obstructions by the administration.

In our study, the most common type of violence that the healthcare workers were exposed to was psychological violence, while the rate of physical violence was found to be lower. According to the review prepared jointly by WHO, ILO and ICN in 2002, in which the studies on violence towards healthcare workers in different countries are evaluated, it was reported that 3-17% of the cases were physical violence, while the rest were verbal insult (27-67%), threat (10% -23), sexual violence(0.7-8%), and ethnic violence (0.8-2.7% (22). In studies conducted in our country, the reported rates of physical violence were similar and lower than psychological violence (23,24).

There were no statistically significant differences between the participants in terms of exposure to violence throughout their professional lives according to gender, age, distribution of duties, and physicians' branches of working. In a study conducted on the ED personnel working in Kocaeli state hospital, it was found that 82% of the employees were exposed to violence and there was no relationship between being exposed to violence and gender, length of service, and age (25). In a similar study conducted in Bolu, no relationship was reported between being exposed to violence and age and gender (26). In our study, the question "What effect did the violence have on you?" was

answered as "I felt anger, sadness, and disappointment" by approximately half of the participants, while one third of the participants stated that they felt insecurity and anxiety and one fifth of them stated that they felt helpless. The question 'What are the negative thoughts caused by the violence you were exposed to?' were answered as "My motivation to work decreased" by three quarter of the participants and as "I regretted being a doctor / nurse" by approximately half of the participants'. In the study of Koristas et al., it was reported that 62.73% of the healthcare workers experienced symptoms of post-violent stress and post-traumatic stress disorder, including anxiety, fear, insecurity, stress, and hesitation, due to violence. In addition, it was reported that, the healthcare personnel who were exposed to violence avoided working in the place where the violence occurred and their job satisfaction decreased, concentration impaired, and ability to listen to patients decreased (27).

When the sub-dimension scores of Maslach Burnout Scale were compared according to being exposed to violence, "Emotional exhaustion" and "Depersonalization" subscale scores of those who were exposed to violence were found to be significantly higher compared to those who were not. However there was no significant difference

between those who were exposed to violence and those who were not, in terms of subscale scores of personal accomplishment. Similar to our study, in another study conducted in our country, sub-dimension scores of "emotional exhaustion" and "depersonalization" were found to be significantly higher in those who were exposed to violence, while no difference was found between the scores of "personal accomplishment" (8).

When the scores of sub-dimension Maslach Burnout Scale were evaluated according to genders, there was no difference between males and females in terms of the mean scores of "emotional exhaustion" and "depersonalization" sub-dimensions. Personal achievement subscale scores of males were higher than females. It is similar to our study results concluding that the dimension of "personal accomplishment" is high in men (28).

When physicians working in internal medicine and surgical branches are compared, "Emotional exhaustion" and "depersonalization" subscale scores of physicians working in surgical branches were found to be significantly higher. There were no significant differences between physicians working in internal medicine and surgical branches in terms of personal success sub-dimension. In the literature, conflicting results about the relationship between working in internal medicine and surgical branches and burnout levels have been reported. In a study conducted at Hacettepe University, similar to our study, "depersonalization" subscale scores of the physicians working in surgical branches were found to be significantly higher (29). However, there are studies reporting that "emotional exhaustion" subscale scores were higher in physicians working in internal branches and there were no differences in terms of "depersonalization" and "personal success" subscales (30). More than half of the employees exposed to violence stated that they did not lodge a complaint to proper authorities. The most common reason for not lodging a complaint was "not expecting any results". Other reasons were "disregarding, taking it in stride", "fear of negative consequences", and "being the one been complained about violence", respectively.

Half of the participants, who lodged a complaint, stated that an investigation was initiated,

and a quarter stated that no action was taken. In the most of the studies conducted in our country, it was reported that healthcare workers continued to provide service, especially after experiencing psychological violence, and did not lodge any legal complaints. The rate of reporting being exposed to physical violence was found to be higher compared to verbal insult and psychological violence. This situation was suggested to be due to the fact that the healthcare workers think that verbal and other types of psychological violence are inherent in the healthcare profession, they do not care, they believe that they cannot achieve any results or even themselves can be the one who is blamed (31,32).

Limitations: The results cannot be generalized since the study was conducted in a single healthcare institution. Due to the limitations arising from the fact that the study was conducted by questionnaire method and only quantitative comparisons were made, the effects of violence on the workers may not be fully reflected. Although variable results were reported by the studies, it is obvious that violence leads to negative thoughts and problems in varying rates in all employees.

CONCLUSION

In our study, the healthcare workers' frequency of being exposed to violence throughout their professional lives was found to be considerably high. The most common type of violence experienced was psychological violence, while physical violence was more common in male gender. Participants generally stated that they did not think the measures taken against violence, by the institution they work were sufficient. As a result, healthcare workers suffer from violence either being exposed to personally or witnessing their colleagues in the workplace. In addition to difficulties of the profession, violence increases the risk of burnout syndrome. Healthcare workers should be informed about burnout syndrome, and those who show symptoms or seek help should be provided with the necessary support. It is necessary for each institution to develop an action plan for incidents of violence, facilitate legal complaint process, and provide legal support to employees.

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