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ANALYSIS OF THE REFLECTIONS OF VIOLENCE AGAINST HEALTHCARE WORKERS IN THE MEDIA USING TEXT MINING METHOD

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Abstract

One of the important communication channels today, the news can inform and manipulate individuals. In order to reveal the public reflections of violence in health care, which is one of the important problems encountered in the health system in Turkey, the news on the subject were examined in detail within this study. The scope of the research consists of 946 news reports from the top five newspapers with the highest circulation (Hürriyet, Sabah, Sözcü, Milliyet and Posta). Web mining was used to obtain the data. In the analysis of the data, word clouds, time graphs and trigram were created using text mining method. In addition, using manual content analysis, the news reports were classified under some basic headings. It was determined that the most frequently used common words in the news headlines, abstracts and contents were "health", "violence", "doctor" and "hospital". When examined in terms of content, it was emphasized in the news that violence in health care occurred mostly in hospitals and emergency departments, violence was committed mostly by patient relatives and patients, the group most exposed to violence was physicians, and violence usually resulted in injury. It is thought that these findings will be beneficial in terms of contributing to the accurate determination of the issues to be prioritized in policy-making processes.

Keywords: *Violence in health care, Text mining, Web mining, Content analysis, The news.*

SAĞLIK ÇALIŞANLARINA YÖNELİK ŞİDDETİN MEDYAYA YANSIMALARININ METİN MADENCİLİĞİ YÖNTEMİYLE ANALİZİ

Öz

Günümüzün önemli iletişim kanallarından biri olan haberler, bireyleri bilgilendirebilmekte ve manipüle edebilmektedir. Türkiye'de sağlık sisteminde karşılaşılan önemli sorunlardan biri olan sağlıkta şiddetin toplumdaki yansımalarını ortaya koymak amacıyla bu çalışma kapsamında konuyla ilgili yapılan haberler detaylı bir şekilde incelenmiştir. Araştırmanın kapsamını Türkiye'de en yüksek tirajlı ilk beş gazeteyle (Hürriyet, Sabah, Sözcü, Milliyet ve Posta) ait 946 haber oluşturmaktadır. Verilerin elde edilmesinde web madenciliği kullanılmıştır. Verilerin analizinde metin madenciliği yöntemi kullanılarak kelime bulutları, zaman grafikleri ve trigram oluşturulmuştur. Ayrıca manuel içerik analizi kullanılarak haberler bazı temel başlıklar altında sınıflandırılmıştır. Haber başlıklarında, özetlerinde ve içeriklerinde en sık kullanılan ortak kelimelerin "sağlık", "şiddet", "doktor" ve "hastane" olduğu belirlenmiştir. İçerik açısından bakıldığında sağlık hizmetlerinde şiddetin en çok hastane ve acil servislerde yaşandığı, şiddetin en çok hasta yakınları ve hastalardan kaynaklandığı, şiddete en çok maruz kalan grubun hekimler olduğu ve şiddetin genellikle hasta yakınları ile sonuçlandığı haberde vurgulanmıştır. Bu bulguların, politika oluşturma süreçlerinde önceliklendirilecek konuların doğru belirlenmesine katkı sağlaması açısından faydalı olacağı düşünülmektedir.

Anahtar kelimeler: *Sağlıkta şiddet, Metin madenciliği, Web madenciliği, İçerik analizi, Haberler.*

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1. INTRODUCTION

A social phenomenon and a global problem, violence is defined by the World Health Organization (WHO) as “The intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment or deprivation” and according to the way it is committed, four different ways have been specified as physical attack, sexual assault, psychological attack and deprivation (WHO, 2021).

Studies in the literature suggest that the places where violence against employees is most common are hospitals, and healthcare professionals are the most vulnerable to violence (El-Gilany et al., 2010; Kara and Toygar, 2019; Shea et al., 2017; Vargas et al., 2021). According to a report published in 2003, it was revealed that one quarter of the violence in the workplace occurred in the health sector (Richards, 2003). According to the statistics of the US Bureau of Justice between 1993-2009, 10% of the workplace attack victims were healthcare workers (Harrell, 2011), while this rate was approximately one-third according to the US Bureau of Labor statistics for 2018 (USBLS, 2018). According to a survey conducted by the Health and Social Workers’ Union in Türkiye on 1300 health workers, 86.8% of the health workers stated that they were exposed to violence at least once in the workplace (HSWU, 2013). It was stated that the number of violence in health reported to the White Code application between 2012-2019 was 91,355 and 75% of the healthcare professionals were exposed to violence at least once (Alan, 2019).

The types of violence experienced by healthcare professionals are listed as verbal violence, psychological violence, physical violence, ethnic-based violence and sexual violence (Richards, 2003). Similarly, a study conducted jointly by the International Labour Organization (ILO), the International Council of Nurses (ICN), WHO, and the International Public Service (IPS) revealed that healthcare professionals were most exposed to verbal harassment and psychological violence (Richards, 2003). Psychological violence is defined as intentional action against a person or collective power that results in physical, mental, spiritual, moral and social harm, including insult, threat, attack, verbal harassment (Li et al., 2018; Ray, 2007). The most vulnerable departments where healthcare professionals are exposed to violence are stated as emergency services, psychiatric services, drug and alcohol clinics, ambulance services and remote health units with insufficient security and a single healthcare worker (Vento et al., 2020). In addition, general practitioners are more vulnerable to violence when they visit their patients at home, especially at night, and when the physician is a woman (Mento et al., 2020).

The factors underlying the increasing violence in the health environment can be listed as delays in treatment and dissatisfaction with the treatment provided (Alsaleem et al., 2018; Carmi-Iluz et al., 2005; Nowrouzi-Kia et al., 2019); aggressive attitudes of patients due to their medical condition or use of drugs such as drugs and alcohol, patients’ opposition to medical intervention applied to them due to their social, political or religious beliefs (WMA, 2017); working in remote health areas, inadequate personnel, emotional or psychological stress of patients or visitors, insecurity to health workers or the health system, lack of safety and preventive measures (Nowrouzi-Kia et al., 2019); patient’s personality traits and social status of the country (Yağar and Dökme, 2019); insufficient time allocated to patients in public hospitals and thus insufficient communication between healthcare professionals and patients, overcrowding of waiting areas (Alsaleem et al., 2018); the degree of professionalism and unacceptable interpretations of healthcare professionals, unrealistic expectations of patients and families about treatment success (Shafran-Tikva, Zelker, et al., 2017), very long hospital stays in private hospitals, unexpectedly high bills, prescribing expensive and unnecessary examinations, and the improper medical practices in the media (Toraldó et al., 2015).

Nowadays, people can have opinions about many issues through the news and can even change their behavior by being affected by these news (Dökme Yağar and Yağar, 2023; Foley et al., 2020). A study on the news in Japan by Okuhara et al. (2019) provides some important evidence regarding creating behavioral change. The main reason for the emergence of the study was the decrease in vaccination rates for human papillomavirus in Japan since a certain date. At this point, the news about this virus in Japan was examined and it was determined that negative content about vaccination has constantly been included in the news since a certain date. When compared, it was seen that vaccination rates decreased with the emergence of negative news. Apart from this,

studies conducted in the USA (Stainback et al., 2020) and Israel (Bazán et al., 2021) during the COVID-19 epidemic have revealed that negative news can negatively affect people. In short, the causes of problems can be discussed better with the help of the news, and the public's awareness can be raised by constantly focusing on certain issues (Gollust and Lantz, 2009). Especially, the depictions of violence in health care in the media are important in terms of creating a social climate that will support the victims. Research shows that addressing a social issue in the media affects individual behaviors as well as public policy reactions. This is because depictions affect people's understanding of a social problem, including the causes or consequences of an incident (Sotirovic, 2003).

In this study, "health violence" news published in the five highest-circulation newspapers in Türkiye were examined by applying text mining method and content analysis, in order to better understand the violence against healthcare workers and make inferences. Similarly, there are studies examining the news about violence in health in both national (Güvercin, 2019; Şantaş and Erdoğan, 2021) and international literature (Bhatti et al., 2021; Coleman and Thorson, 2002). It has been observed that the classical content analysis method is generally used in these studies. What makes this study valuable and distinguishes it from other studies is that, in addition to classical content analysis, the text mining method was used and a larger data set was studied. Thus, it was aimed to contribute to the formation of a public opinion on the subject and to make accurate decisions in the formation of regional policies. The answers to the following questions was sought.

1. What are the issues highlighted in the news about violence in health?
2. Has there been an increase in the news about violence in health over the years?
3. What are the frequently encountered words and phrases in the news about violence in health?

2. MATERIALS AND METHODS

In this study, text mining method was used within the framework of the summative content analysis approach, which is one of the content analysis methods.

Content analysis is a widely used qualitative research technique that is used to analyze written, verbal or visual communication messages (Cole, 1988). Existing content analysis applications are carried out with three different approaches as traditional, directed and summarizing. Approaches are used to interpret meaning from the content of text data. The main differences between them are coding schemes, their origins, and threats to reliability. In traditional content analysis, coding categories are derived directly from text data. The analysis with the guided approach begins with a theory or relevant research findings as a guide for the initial codes. Summative content analysis, on the other hand, usually involves counting and comparing keywords or content and then interpreting the basic context (Hsieh and Shannon, 2005). On the other hand, content analysis was conducted with an inductive approach. In this approach, which is a type of analysis, the origins of an event or phenomenon are evaluated and new outputs are obtained from detailed and descriptive data (Baltacı, 2019).

The increasing availability of digitized text created through text mining constitutes an important field of study for social scientists. Content analysis has spread over a wide area with automated methods rather than manually coded projects. Given the difficulty of manually coding people in much larger-scale data, the need for computer-based automated methods is rapidly increasing. For example, the recent large increase in web pages, blogs, emails, books, articles, transcripts, and electronic versions of government documents suggests that many new digitized text applications are a potential area (Hopkins and King, 2010).

2.1. Data Set

Circulations (number of readings of the news) were taken into consideration in the selection of the newspapers evaluated within the scope of the study. In this context, it was seen that the newspapers with the highest circulation were Hürriyet (n=190.785), Sabah (n=189.103), Sözcü (n=179.750), Milliyet (n=136.189) and Posta (n=115.138), respectively (MA, 2021). On the other hand, all the news recorded on the newspapers' websites on 11.08.2021 was accessed by using the search buttons of the newspapers. Screening was performed using the keyword "Violence in Health Care". Web scraping method was used to collect the news and the data

were extracted from HTML codes. Web scraping is a software technique that aims to obtain information from websites. It is to obtain the desired information by enabling the search engine to index the information on the web through a bot. Using computer software, the boots mimic people's web browsing. With this feature, it is also closely related to web automation and web indexing. It generally allows unstructured data on the web in HTML format to be converted into structured data by storing it in a central local database or spreadsheet (Vargiu and Urru, 2013).

The study consists of two parts in terms of its general structure. In the first part, 946 news stories (Graph 1), the media news about violence in health were examined to provide an overview. These news stories obtained as a result of web scraping were classified by considering the heading, summary and content sections and word clouds were created. On the other hand, the content of the news about violence in health depicted by the media was determined in the study. In the second stage of the study, by looking at the content of the news, the news about healthcare workers who were harmed only as a result of physical and verbal violence and the institutions that were physically harmed were examined in more detail. Among the news obtained (n=946), 155 news that met the criteria of the second stage were identified. These news (n=155) were evaluated by applying descriptive statistics under the headings of the type of violence, the result of the violence suffered, the place where the violence took place, the people who committed the violence and the individuals exposed to violence.

2.2. Data Analysis

In the analysis process of the research, the word frequencies of the heading, summary and content sections of the news about violence in health were figured out. Word clouds of commonly used words were created in the sections. The distribution of the news by years was graphized using Python software language. Finally, in which provinces the news is frequently mentioned is given in a table. The data pre-processing processes and weighting methods of the obtained news were carried out with KNIME software. KNIME software is the data analysis, reporting and integration platform. There are various components for machine learning and data mining. With Knime software, processes such as data pre-processing and cleaning, modelling, analysis and data mining, distribution graphics, parallel coordinates can be applied (Dwivedi et al., 2016).

In the data pre-processing process, all words were converted to lowercase letters, punctuation marks were removed, and the numbers were deleted. In the continuation of the process, Stop Words were removed from the texts. Stop Words are words that have no semantic relationship with the context in which they are located. Therefore, they should not be included as indexing terms (Alajmi et al., 2012). Thus, Stop Words, which is a basic tool in the text mining process, is the process of removing frequently used words from the texts during data pre-processing. It allows the frequencies of words that are important in the text to be extracted (Hao and Hao, 2008). In Turkish, prepositions, pronouns, conjunctions and auxiliary verbs are used as Stop Words. For example, words such as "so, and, with, always, maybe, also" are included in this scope (Amasyalı et al., 2006).

In the natural language processing process, word roots were determined using the open source Zemberek Library. TF-IDF and N-gram methods, which are among the word weighting methods, were used. Python software language was used in word clouds and n-grams. Likewise, after the contents of the news were classified, descriptive statistics were created using Python software language.

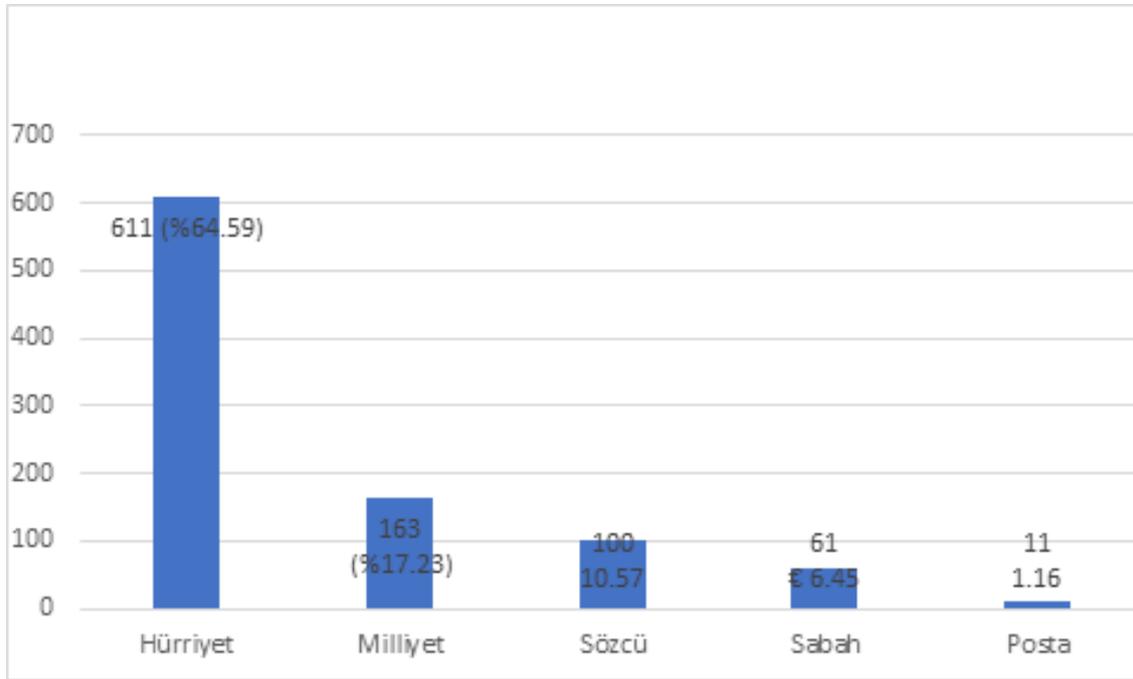
2.3. Limitations

Only the word "violence in health care" was used as a key term to collect data from newspaper news. Another limitation of the research is the access to the news that newspapers only digitally record in their archives, and the inability to access printed or unrecorded news. In addition, the fact that Sözcü newspaper allowed a limited number of news (n=100) shootings was another limitation of the study.

3. RESULTS

Word clouds were created by determining the word frequencies of the heading, summary and content sections of the news about violence in health. Triple n-gram technique was applied to determine the commonly used word groups in the departments. The distribution of the news according to the provinces where the news

took place and the year of publication of the news was determined. In addition, in the study, the news stories were examined in detail by applying manual content analysis method and classified under some basic headings. Additionally, information about the data of the study is stated.



Graphic 1. Distribution of News Numbers by Newspapers

The distribution of the news obtained according to the newspapers is shown in Graph 1. Hürriyet newspaper constitutes approximately 65% of the news on the subject. This newspaper is followed by Milliyet (17.23%), Sözcü (10.57%), Sabah (6.45%) and Posta (1.16%), respectively.

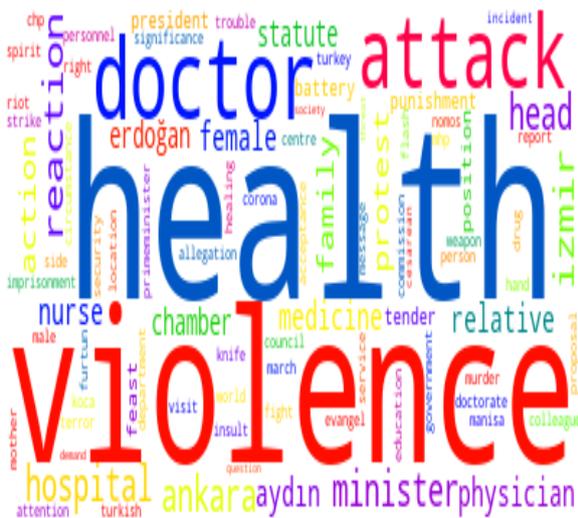
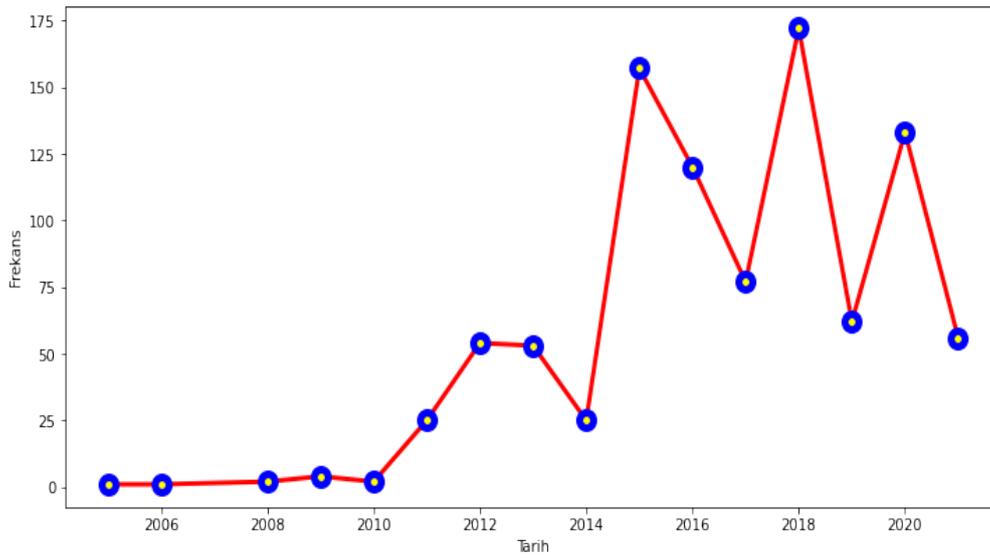


Figure 1. Content Analysis Regarding Headings



Figure 2. Content Analysis Regarding Summaries

When the news headings regarding the violence in health care were examined with content analysis, it was seen that there were five most commonly used words: “health”, “violence”, “doctor”, “attack” and “hospital” (Figure 1, Table 1). Besides, when the trigram of the word groups used in the headings were analyzed, it was found that these were “medical chamber president”, “health violence law” and “health violence reaction”.



Graphic 2. Time Graph of the Newspaper Reports on Violence in Health Care

The historical distribution of the news is shown in Graph 2. It is seen that there are historical fluctuations in the news about violence in health. In addition, it was determined that there was an increase in the news about violence in health after 2010 and the year in which the most news was made was 2018.

Table 2. The Subject of Newspaper Reports on Violence in Health Care

Subject of the News	N	%
Protests of health workers on violence in health care	218	27.5
Explanations of health professional groups (such as Turkish Medical Association, Health-Sen)	216	27.2
Condemnation of violence in health care	130	16.4
News about the law	113	14.2
Healthcare professionals striking	24	3
Regarding the Doctor's Day	22	2.8
Conferences on violence in health care	21	2.6
Interviews with the violated healthcare worker or his/her family	13	1.6
Commemoration ceremonies for colleagues who die as a result of violence in health care	13	1.6
Regarding the statement of The Council of Higher Education	9	1.1
Concerning the consequences of cases of violence in health care	7	0.9
Regarding the reports of individuals subjected to violence in health care	7	0.9
TOTAL	793	100
<i>* Some of the news are in more than one category.</i>		

When the contents of the news were examined, it was determined that the content of the news were respectively about the health workers' protests about violence in health care (n=218), the statements of the health professional groups (such as the Turkish Medical Association, Health-Sen) (n= 216), the news about condemning violence in health care (n=130), the news about the law (n= 113), the news about the health workers' striking (n=24), the news about the medical holiday (n=22), the conferences on violence in health care (n=21), the interviews with the health worker or his family (n=13), the commemoration news for colleagues who died as a result of violence in health care (n=13), the news about the statement of the Council of Higher Education (n=9), the news about the results of violence in health care (n=7), the reports of individuals who were exposed to violence in health care (n=7) (Table 2).

Table 3. Distribution According to the Provinces where Newspaper Reports on Violence in Health Care was Published

Number	Provinces	N	%	Number	Provinces	N	%
1	Ankara	128	20.2	34	Kastamonu	3	0.5
2	İzmir	65	10.3	35	Kocaeli	3	0.5
3	İstanbul	49	7.7	36	Kırşehir	3	0.5
4	Antalya	38	6	37	Ordu	3	0.5
5	Gaziantep	31	4.9	38	Osmaniye	3	0.5
6	Samsun	30	4.7	39	Rize	3	0.5
7	Aydın	25	3.9	40	Trabzon	3	0.5
8	Kayseri	21	3.3	41	Uşak	3	0.5
9	Bursa	17	2.7	42	Van	3	0.5
10	Manisa	17	2.7	43	Zonguldak	3	0.5
11	Adana	14	2.2	44	Şırnak	3	0.5
12	Diyarbakır	13	2	45	Bolu	2	0.3
13	Balıkesir	9	1.4	46	Burdur	2	0.3
14	Konya	9	1.4	47	Giresun	2	0.3
15	Muğla	9	1.4	48	Kütahya	2	0.3
16	Sivas	9	1.4	49	Mardin	2	0.3
17	Şanlıurfa	9	1.4	50	Niğde	2	0.3
18	Adıyaman	8	1.3	51	Afyonkarahisar	1	0.1
19	Denizli	7	1.1	52	Ardahan	1	0.1
20	Edirne	7	1.1	53	Bartın	1	0.1
21	Mersin	7	1.1	54	Batman	1	0.1
21	Eskişehir	6	0.9	55	Bayburt	1	0.1
23	Sakarya	6	0.9	56	Bingöl	1	0.1
24	Malatya	5	0.8	57	Elazığ	1	0.1
25	Çanakkale	5	0.8	58	Karabük	1	0.1
26	Artvin	4	0.6	59	Kars	1	0.1
27	Ağrı	4	0.6	60	Kilis	1	0.1
28	Erzurum	4	0.6	61	Muş	1	0.1
29	Kırıkkale	4	0.6	62	Tekirdağ	1	0.1
30	Nevşehir	4	0.6	63	Tunceli	1	0.1
31	Aksaray	3	0.5	64	Çankırı	1	0.1
32	Bitlis	3	0.5	65	Çorum	1	0.1
33	Kahramanmaraş	3	0.5	Total		633	100

** The province was not specified in 313 of the news.*

The distribution of the news about violence in health care according to the provinces is shown in Table 3. While approximately 67% (n=633) of the news in the newspapers mentioned provinces, approximately 33% (n=313) did not mention. It was determined that Ankara (20.2%) was the most frequently mentioned province in the news. On the other hand, it was determined that İzmir (10.3%), İstanbul (7.7%) and Antalya (6%) were other most frequent provinces.

Table 4. Places where Violence in Health Care were Reported in Newspapers

Place of Violence	n	%	Place of Violence	n	%
Hospital	42	27.1	Oral and Dental Health Center	1	0.65
Emergency Service	40	25.81	Urology Service	1	0.65
Family Health Center	22	14.19	Radiology	1	0.65
112 Emergency Department Intervention Unit	10	6.45	Orthopedics Service	1	0.65
Intensive Care Service	9	5.81	Tuberculosis Control Dispensary	1	0.65
Outpatient clinic	7	4.52	Mental and Neurological Diseases	1	0.65
Pharmacy	6	3.87	Ophthalmology Clinic	1	0.65
Psychiatry	3	1.94	Thoracic Surgery Service	1	0.65
Palliative care	2	1.29	Dialysis Service	1	0.65
Physical Therapy Service	2	1.29	Emergency Isolation Polyclinic	1	0.65
Neurology Clinic	1	0.65	Total	155	100
112 Emergency Operations Center	1	0.65			

** The News that does not include branches are collected under the "hospital" category.*

In the newspapers, the most common places where violence in health care was seen were reported as hospitals (27.1%). It was followed by the emergency department (25.81%), the family health center (14.19%) and the place where 112 Emergency Services intervened (6.45%) (Table 4).

Table 5. Type of Violence in Health Care in Newspaper Reports

Type of Violence	n	%
Physical	106	68.39
Physical and Verbal	36	23.23
Verbal	13	8.39
Total	155	100

Physical violence (68.39%) was the most common type of violence in health care reported. Moreover, it was determined that physical and verbal violence was used in 23.23% of the news and only verbal violence was used in the remaining 8.39% (Table 5).

Table 6. Persons Committing Violence in Health Care According to Newspaper Reports

Persons Committing Violence	n	%	Persons Committing Violence	n	%
Patient Relative	89	57.42	Chief Physician	1	0.65
Patient	36	23.38	Unknown	1	0.65
Patient and relative	15	9.74	Doctor	1	0.65
Subject	7	4.55	Pharmacist's Wife	1	0.65
Nurse	2	1.30	Total	155	100
Usurper	2	1.30			

Those who committed the most violence in health care were patients' relatives (57.42%) and patients (23.38%). In addition, patients and their relatives (9.74%) also showed violence together (Table 6).

Table 7. Individuals Exposed to Violence in Health Care According to Newspaper Reports

Individuals Exposed to Violence	N	%	Individuals Exposed to Violence	N	%
Doctor	81	52.60	Pharmacist and his/her Employee*	1	0.65
Nurse	15	9.68	Healthcare Personnel	1	0.65
Healthcare Workers	15	9.68	Medical Secretary	1	0.65
112 Healthcare Workers	9	5.84	X-ray Technician	1	0.65
Doctors and Healthcare Professionals*	8	5.19	Nurses and Healthcare Professionals*	1	0.65
Pharmacist	6	3.90	Midwife	1	0.65
Doctor and Nurse*	5	3.25	Radiology Technician	1	0.65
Filiation Team	3	1.95	Patient-Care Nurse	1	0.65
Emergency Medical Technician	3	1.95	Tomography Technician	1	0.65
Nurse and Security Officer*	1	0.65	Total	155	100
<i>* The News of violence that healthcare workers are exposed to together</i>					

According to newspaper reports, the individuals most exposed to violence were doctors (52.60%), nurses (9.68%) and healthcare professionals (9.68%), respectively. In some news, the healthcare worker who experienced violence was not fully specified and was mentioned as ‘doctors and healthcare professionals’ or ‘nurses and healthcare professionals’ (Table 7). It was determined that the most common results of violence in healthcare were injuries (76.77%) and psychological harm (16.13%) (Table 8).

Table 8. The Result of the Violence Exposed to According to Newspaper Reports

The Consequence of Violence Exposed to	N	%
Injury	119	76.77
Psychological Damage	25	16.13
Death	6	3.87
Damage to the Hospital	4	2.58
Damage to the Pharmacy	1	0.65
Total	155	100

4. DISCUSSION

In the study, it was aimed to obtain information about the news about violence in health care with a statistical approach and to better understand the subject by examining the news of the five newspapers with the highest circulation, thus creating public opinion on the subject and contributing to the correct determination of the issues to be prioritized in policy-making processes.

In the word clouds created in the light of the findings of the study, it was seen that the most common words in the news headlines, abstracts and contents were “health”, “violence”, “doctor” and “hospital”. In line with these words, it is thought that violence in health care is mostly against doctors and in hospitals. As a result of the study, among individuals exposed to violence in health care, doctors rank first in newspaper news and hospitals and emergency departments rank first in the list of places where violence in health care occurs. When the relevant studies in the literature were examined, it was understood that nurses were exposed to violence in the workplace more than doctors according to many studies (Cheung et al., 2017; Liu et al., 2019; Shafran-Tikva, Chinitz, et al., 2017). However, in some countries, violence against doctors can be more dangerous, and violence is especially committed to young doctors due to the perception that the patient receives wrong or inadequate treatment (Volz et al., 2017). Again, according to a meta-analysis study on the subject (Liu et al., 2019), the places where violence is most common in health are stated as emergency departments and psychiatric services, which is supported by many studies (Volz et al., 2017; Wu et al., 2015) and gives similar results to the findings of the study.

The trigram and the words “medical chamber head”, “health violence law” and “health violence reaction” and the words “Recep Tayyip Erdoğan” in the summary section indicate the legal change requests on the subject. As a matter of fact, the “Proposal for the Law on the Amendment of the Basic Law on Health Services”, which the Turkish Medical Association (TTB) carried to the Grand National Assembly of Türkiye (TBMM) in 2019 in order to prevent violence in health care, was adopted by the TBMM on 15.04.2020 (TMA, 2020). On April 17, 2012, upon the killing of Dr. Ersin Arslan by his patient, TTB declared ‘Day to Fight Against Violence in Health Care’ on April 17, 2021, and in their commemoration ceremonies on April 17, 2021, they stated that the law on violence in health care passed by the TBBB was insufficient to meet the demands, on the contrary, it encourages the aggressor and an effective law on violence in health care is expected (SN, 2021).

Due to the fact that violence in health care has been increasing since 2010 and Ankara, the capital of Türkiye, ranks first among the provinces where the news has been published, the publication graph of the news on violence in health care is another indicator that the demands and legal regulations on the prevention of violence in health care in Türkiye are increasing. In the study, it was determined that the frequency of exposure to violence varies according to provinces (Kopan et al., 2013). In another study, it was determined that the high number of hospitals in big cities such as Ankara and Istanbul caused problems (Demir, 2019). As a matter of fact, “Regulation on Ensuring Patient and Employee Safety” by the Ministry of Health dated 06.04.2011 (ON, 2011); ‘Circular of Investigation of Crimes Committed Against Healthcare Professionals’ of the Ministry of Interior, dated 26.04.2012 (MI, 2012); “Regulation on the Procedures and Principles of Legal Aid to be Provided Due to Crimes Committed Against the Personnel of the Ministry of Health”, dated 28.04.2012, by the Ministry of Health; ‘Decision on the Establishment of a Parliamentary Investigation Committee to Investigate the Increasing Incidents of Violence Against Healthcare Professionals and to Determine the Measures to be Taken’, dated 03.05.2012 (ON, 2012b); ‘Circular on Ensuring Employee Safety’ dated 14.05.2012 (MH, 2012); The “Occupational Health and Safety Law” dated 20.6.2012 and numbered 6331 all show that in these years, an intense legal regulation was made in the field of violence in health care.

As a type of violence, newspaper reports revealed that physical violence was the most frequent, and the majority of those who commit this violence were relatives and patients. In a study conducted by Zhang et al. (2018), the majority of healthcare professionals stated that they were exposed to verbal violence (65.2%), while those who were exposed to physical violence remained in the minority (14.6%). In the study of (Liu et al., 2019), it was stated that the majority of healthcare professionals were exposed to non-physical violence and about a quarter of them were exposed to physical violence; while the most common form of non-physical violence was verbal harassment, it was followed by threats and sexual harassment. Similarly, the majority of healthcare professionals who were verbally harassed by patients and their visitors in Jordan while physical abuse is perpetrated by patients and visitors (Peng et al., 2018). In other words, although many studies in the literature show that psychological violence against healthcare professionals is more prevalent than physical violence, it is seen that the psychological violence is ignored in newspaper news and physical violence is emphasized more.

The results of violence on healthcare professionals were reported as the highest number of injuries, followed by psychological harm and death, respectively, according to the newspaper reports in Türkiye. Similarly, literature studies on the subject indicate that the consequences of violence against healthcare workers can be very serious, including death or life-threatening injuries (Jeong and Kim, 2018; Schablon et al., 2018; Strickler, 2018); depression, anxiety and post-traumatic stress disorder (Fang et al., 2018; Jalil et al., 2017; Martinez, 2016); high burnout (Jalil et al., 2017; Rafeea et al., 2017); job dissatisfaction, decreased productivity, drug use, excessive alcohol use and decreased quality of life (Liang et al., 2015); prevention of equal access to primary health services as a result of the difficulty of keeping healthcare workers at work (Choi and Lee, 2017; Eneroth et al., 2017); decrease in the quality of medical care with increasing workload (McNamara, 2010); increase in work stress and overall negative impact on health and physical health (Zhang et al., 2018).

5. CONCLUSION

In this study, the news about violence in health care was examined using both text mining and classical content analysis. It has been determined that the news reached its peak in 2018. With text mining, the most commonly used words were determined. It was observed that the title, summary and content were compatible

with each other and the words “health”, “violence”, doctor”, “attack” and “hospital” were used most. Likewise, when the triple n-grams were examined, it was observed that the words “Recep Tayyip Erdoğan” and “In Health” were used. It has been determined that the structures of the “Law on Violence” are included in the news. On the other hand, the news was examined in detail with classical content analysis. Although it is generally included in hospitals, it has been determined that health violence is especially prevalent in emergency health services and family health centers, and the employees most exposed to violence are doctors. News reports indicated that violence was often physical and resulted in injury. Finally, it was observed that the group that committed violence the most was patients and their relatives.

In conclusion, all employees have the right to be safe in their jobs, and healthcare workers are no exception. According to the five newspapers with the highest circulation in Türkiye, it is evident that doctors and nurses working in the emergency departments of hospitals in Türkiye are exposed to psychological violence, especially physical violence. It is seen that legal regulations such as the “Law on Amendments to the Basic Law on Health Services”, which was known as the “Law on Violence in Health Care” issued on 15.04.2020 with great hopes on the subject were put into effect but have fallen behind and the request for new legal regulations by TTB and medical chambers continues. In addition, Türkiye’s exit from the “Council of Europe Convention on Preventing and Combating Violence Against Women and Domestic Violence”, which was first opened for signature in Istanbul on May 11, 2011 and known as the “Istanbul Convention”, as of July 1, 2021, also contributed to the creation of an atmosphere in which violence was not punished in the country and the necessity of revising all these legal regulations that could pave the way for violence arose. On the other hand, as a result of the Health Transformation Program, the reduction of examination times to five minutes in order to meet the increasing health demand causes both the patient not to feel adequately satisfied with the service they receive and the emergence of psychological problems such as burnout, depression, and stress due to the intense workload experienced by the health care workers, as well as quitting the job. This leads to the emergence of options to immigrate to countries that offer better opportunities. Therefore, increasing the number of health personnel by making health workforce planning better, allocating longer examination periods to patients, increasing the financial provision of the labor of health care workers to satisfactory levels, providing training and other kinds of assistance to increase their psychological resilience are other suggestions that should be planned in addition to legal regulations to prevent violence.

The idea that violence is inherent in medical professions such as doctors and nurses, especially in certain departments, must be combated, urgent measures must be taken to ensure the safety of all healthcare professionals in their environment, and the resources needed must be allocated. Otherwise, the physical and psychological health of the currently insufficient number of healthcare professionals will be adversely affected, the quality of healthcare services they provide will decrease, and ultimately the entire healthcare system will be adversely affected.

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