



# The 100 Most Cited Violence Studies in Nursing Journals: A Bibliometric Analysis

## Hemşirelik Dergilerinde En Çok Atıf Yapılan 100 Şiddet Çalışması: Bibliyometrik Bir Analiz

 Hande YEŞİLBAŞ<sup>a</sup>,  Filiz KANTEK<sup>b</sup>

<sup>a</sup>Nurse Supervisor, VM Medical Park Kocaeli Hospital, Kocaeli, Türkiye

<sup>b</sup>Department of Nursing Management, Akdeniz University Faculty of Nursing, Antalya, Türkiye

**ABSTRACT Objective:** This study aimed to analyze the 100 most cited studies on violence published in nursing journals and to elicit the descriptive characteristics and research tendencies of these studies with a bibliometric analysis. **Material and Methods:** Descriptive and bibliometric analyses were used. The study data were collected from the Web of Science database. A search was performed of the 122 journals in nursing category in Science Citation Index Expanded and Social Sciences Citation Index indexes and included the 100 most cited studies in these journals. The data were analyzed with Excel and SPSS. **Results:** It was reported that the 100 most cited studies received 6,371 citations. The studies were conducted by 271 authors from 79 institutions and 19 countries. It was also noted that 40% of these studies were conducted in the United States. The studies were published in 32 journals and the Journal of Advanced Nursing was found to include more articles than any other journals as well as publishing the most cited articles. **Conclusion:** Violence is a growingly popular research topic in nursing studies. While this research contributes to the visibility of violence studies in nursing journals, it will be a guide for nurse researchers and readers by revealing the current situation and trends.

**Keywords:** Bibliometrics; nurses; nursing; violence

**ÖZET Amaç:** Bu araştırmanın amacı, hemşirelik dergilerinde şiddet konusunda en çok atıf yapılan 100 çalışmayı analiz etmek ve bu çalışmaların temel özelliklerini ve araştırma eğilimlerini analiz etmektir. **Gereç ve Yöntemler:** Tanımlayıcı ve bibliyometrik analiz kullanıldı. Araştırmanın verileri Web of Science veri tabanından elde edilmiştir. Hemşirelik kategorisinde, Science Citation Index Expanded ve Social Sciences Citation Index'te toplam 122 farklı dergide tarama yapıldı ve bu dergilerde en fazla atıf alan ilk 100 makale dâhil edildi. Verilerin analizinde Excel ve SPSS kullanıldı. **Bulgular:** En fazla atıf alan 100 çalışma 6.371 atıf almıştı. Çalışmalar 19 ülkeden, 271 farklı yazar ve 79 kurum tarafından üretilmişti. Çalışmaların %40'ının Amerika Birleşik Devletleri tarafından üretildiği saptandı. Çalışmalar 32 dergide yayımlanmıştı ve çalışmalar arasında en fazla çalışma ve atıf sayısına sahip dergi Journal of Advanced Nursing idi. **Sonuç:** Şiddet, hemşirelik araştırmalarında giderek daha popüler hâle gelen bir araştırma konusudur. Bu araştırma, hemşirelik dergilerinde şiddet çalışmalarının görünürlüğüne katkı sağlamakla birlikte, mevcut durum ve eğilimleri ortaya koyarak hemşire araştırmacılar ve okuyucular için yol gösterici olacaktır.

**Anahtar Kelimeler:** Bibliyometri; hemşireler; hemşirelik; şiddet

Violence against healthcare workers has reached worrying levels on a global scale.<sup>1</sup> Although violence against professionals are now a universal phenomenon, it is widely evidenced that health professionals, especially nurses, are exposed to violence at the workplace more frequently.<sup>2</sup> Moreover, violence may usually refer to a variety of attitudes and behaviors that constitute verbal, physical, sexual, and emotional forms of violence or sometimes it may simply denote attitudes and behaviors that harm or threaten others.<sup>3</sup>

It has been recently reported concerning the prevalence of violence that a third of nurses worldwide have been physically assaulted or injured, one fourth of all nurses have been sexually harassed, and two thirds of nurses have been verbally abused.<sup>4</sup> It has been often reported that violence results in a decrease in productivity and job performance, low levels of organizational commitment, lower levels of autonomy and intent to stay. Also, it may also lead to depression, stress-related disorders, and post-traumatic stress disorder, sleep disorders, worsening of

**Correspondence:** Hande YEŞİLBAŞ  
VM Medical Park Kocaeli Hospital, Kocaeli, Türkiye  
E-mail: handeyslbas@gmail.com



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social relationships.<sup>5,6</sup> Reducing or eliminating violence against nurses will only be possible by understanding the underlying mechanisms and motivations of violence.

Violence against nurses has recently been a popular research topic in the field of nursing. However, only a little is known about the structure, development, and characteristics of violence in nursing studies, which this study will particularly focus on. More specifically, this study is designed to investigate current tendencies and characteristics of violence in nursing journals by analysing the 100 most cited articles. By doing so, it is considered to shed light into the nursing studies in future by mapping out research on violence.

## BACKGROUND

Bibliometric studies are crucially important to demonstrate the historical progress of a certain field.<sup>7</sup> It also helps to predict field-specific needs and tendencies of future studies.<sup>8</sup> Bibliometric analysis also enables a comprehensive analysis of published articles based on certain criteria such as authors, institutions, research topics, publication year, keywords, citations, and co-citations. These findings allow a comparative analysis of studies conducted in different countries and/or institutions and elaboration of the most competent authors and journals in the field.<sup>9</sup>

Citation analysis is one of the popular methods in bibliometric analysis and it is regarded as an efficient method to evaluate the impact of journal.<sup>10</sup> The number of citations generally reflect the contribution of a given study to a specific field and how wide its impact is.<sup>11</sup> Citation analysis may present the definitive characteristics and research tendencies of all studies in a field and it may sometimes provide an analysis of a certain studies with the highest number of citations.<sup>12</sup> The researchers have analyzed the most cited articles in several bibliometric studies. Cant and Cooper investigated the 100 most cited nursing simulation studies with the bibliometric analysis.<sup>13</sup> Pena-Ibanez and Ruiz-Iniguez conducted a bibliometric analysis of the 50 most cited articles published in Spanish journals between 1997-2016 while Martín-Del-Río et al. analyzed the 100 most cited articles in nursing journals.<sup>12,14</sup>

## MATERIAL AND METHODS

### AIM

This study aimed to analyze the 100 most cited studies on violence published in nursing journals and to elicit the descriptive characteristics and research tendencies of these studies with a bibliometric analysis. The study was designed as a retrospective descriptive study. In the study, answers to the following research questions were sought:

- Characteristics of the top 100 cited studies on violence
- Distribution of the 100 most cited violence publications by study types
- Distribution of the citations and citations density of the top 100 cited studies on violence by years
- Distribution of the authors in terms of institution, country and publication count
- Leading journals in terms of citations, citations density, quartile in nursing category and country

### DATA COLLECTION

The study data were collected from Web of Science (WoS) database on 22 March 2020. The review process was planned as follows: Firstly, the researchers had access to WoS Core Collection database. Then, they inserted “violence” “and” into the title section and they searched these keywords by inserting the name of each journal into the publication name section. According to InCites Journal Citation Reports for the year 2018, there were 118 journals in nursing category in Social Sciences Citation Index database and 120 journals in Science Citation Index Expanded database. Having excluded duplications, the analysis included 122 journals and consequently the researchers found 1,332 studies in 101 journals (Figure 1). All studies were recorded with reference to the number of citations and the 100 most cited articles were listed by the researchers. All studies were included in the study and none was excluded according to the publication type or publication year. A copy of all studies was saved. Rigour of each study was tested by the researchers and interobserver agree-

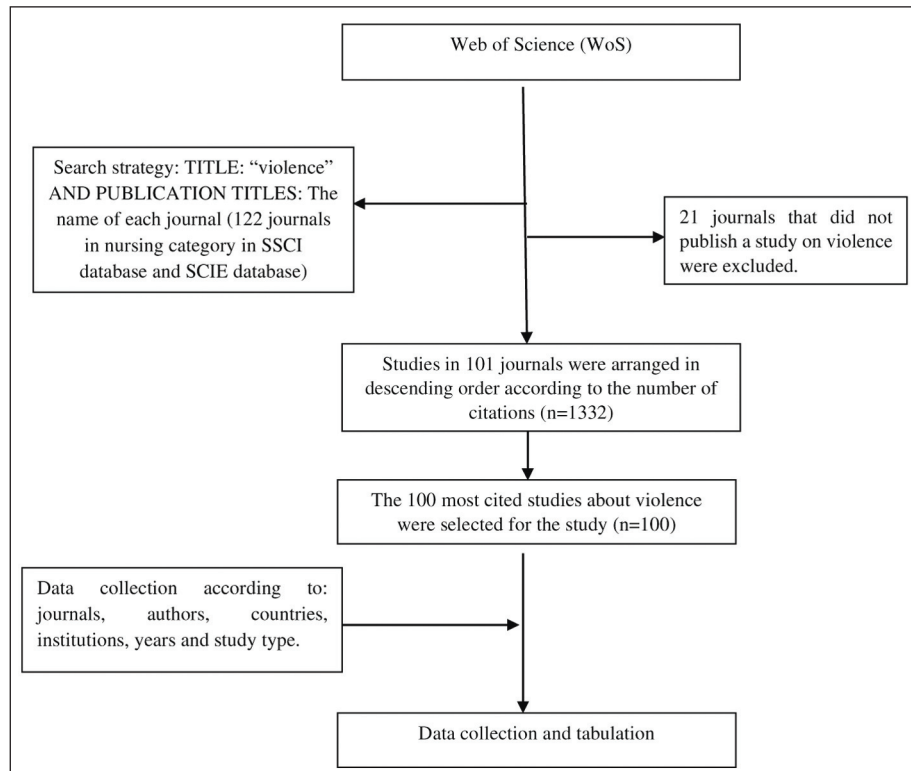


FIGURE 1: Flow diagram.

SSCI: Social Sciences Citation Index; SCIE: Science Citation Index Expanded.

ment was confirmed. The researchers collected data from each article such as (a) the title of the article (b) the name(s) of the author(s) (c) the institution and the country of the first author (d) the publication year (e) the name of the journal (f) the current number of citations and (g) the publication type. The inclusion criteria included a clear focus on violence and a publication in a nursing journal.

**INCLUSION CRITERIA**

The study included studies with a clear focus on violence. Studies published in the nursing journals until March 22, 2020 were included in the research. There were no publication type restrictions made.

**DATA ANALYSIS**

The descriptive characteristics (publication year, author, country, institution, publication type, the number of citations, etc.) were analyzed with Microsoft Excel (Microsoft Corporation, Redmond, WA, USA)

and IBM software Statistical Package for the Social Sciences (SPSS Inc., Chicago, IL, USA). The information regarding the base country of the journal was derived from InCites Journal Citation Reports (JCR). The publication types were analyzed in 4 categories: (1) theoretical studies including literature reviews, systematic reviews and meta-analyses; (2) empirical quantitative studies, (3) empirical qualitative studies and (4) mixed studies (Table 1). Moreover, the researchers analyzed the citation density and citation tendencies as well. The number of publications and

Type of publication	Number of publications
(1) Theoretical studies including literature reviews, systematic reviews and meta-analyses	22
(2) Empirical quantitative studies	56
(3) Empirical qualitative studies	16
(4) Mixed studies	6

the number of citations were correlated with the publication year by using Pearson correlation analysis.

#### VALIDITY AND RELIABILITY/RIGOUR

Each publication included in the study was tested for rigour and interobserver agreement was established in each article.

#### ETHICAL CONSIDERATIONS

Since this study has no direct effects on human beings and/or animals, no ethical approval was required to conduct the study.

## RESULTS

The 100 most cited articles on violence in nursing journals are given in Table 2. The number of citations ranged from 29 to 235 and the mean number of citations was found to be 63.71. The most cited article (235 citations) was a descriptive study conducted by McKenna et al. in the *Journal of Advanced Nursing* in 2003 entitled “Horizontal Violence: Experiences of Registered Nurses in Their First Year of Practice.” The study with the highest citation density (27.6 citations) was carried out by Spector, Zhou & Che, and published in *International Journal Nursing Studies* in 2014. The study was a quantitative review investigating how nurses were exposed to physical/non-physical violence, assault and sexual harassment and sexual abuse.

The 100 most cited articles were produced in 19 countries and 79 institutions. The most productive country was the United States of America (USA) (n=40), Australia (n=12), Sweden (n=10) and United Kingdom (UK) (n=9), respectively. A majority of studies (69%) were conducted in English-speaking countries (Australia, Canada, Ireland, New Zealand, UK, USA, Hong Kong) while 31% of the studies were conducted in non-English speaking countries (Iran, Israel, Finland, Italy, Jordan, Korea, Kuwait, Sweden, Switzerland, Taiwan, Türkiye). The most productive institutions were University of Miami (USA) (n=4), University of Cincinnati (USA) (n=3), University of Central Lancashire (UK) (n=3), and Bern University of Applied Sciences (Switzerland) (n=3) (Table 2).

It was found that 56% of the most cited studies were quantitative studies, 22% of these studies were theoretical studies, 16% of these studies were qualitative studies and 6% were mixed studies (Table 2). Moreover, there were 22 theoretical studies and 54.54% of these studies (n=12) were systematic reviews.

As far as the research topics are concerned, the most common topics were violence against nurses (n=37), intimate partner violence (n=18), violence against healthcare workers (n=16), violence against women (n=5), domestic violence (n=5), violence against nursing students (n=3), interpersonal violence (n=3), and others (n=13), respectively.

Figure 2 demonstrates the number of publications, the number of citations, and citation density. The 100 most cited studies on violence were published between 1994-2015. The highest number of studies (15 studies) and the highest number of citations (942 citations) were recorded in 2011. It was further noted that 96.7% of the studies were published after 2000. The number of studies and the number of citations were correlated and a positive correlation ( $r=0.935$ ;  $p=0.001$ ) was reported. The highest citation density was recorded in 2000 (CD=110) and the lowest in 1999 (CD=34).

Table 3 presents data on the authors of the 100 most cited studies and it was concluded that these studies were conducted by 271 authors. The most productive authors were Jacquelyn C. Campbell from the Johns Hopkins University, USA, Sabine Hahn from Bern University, Switzerland and Ian Needham from St. Gallen University of Applied Sciences each of whom published 4 articles (Table 3). It was similarly stated that 85% of all studies were published by 2 or more authors while only 15% of these studies were published by a single author.

It was further noted that the 100 most cited studies were published in 32 journals. The *Journal of Advanced Nursing* included the highest number of studies (n=13) and the highest number of citations (n=1,248), which was followed by *International Journal of Nursing Studies* (8 studies, 705 citations) and *Journal of Clinical Nursing* (11 studies, 547 citations). The citation density was found to be the high-

**TABLE 2: The descriptive characteristics of the 100 most cited studies about violence.**

Rank	Title	Author(s)/year	First author institution and country	Cited	Citation density <sup>1</sup>	Type of study <sup>2</sup>
1.	Horizontal violence: experiences of registered nurses in their first year of practice	McKenna, Smith, Poole & Coverdale (2003)	University of Auckland, New Zealand	235	13.8	2
2.	Aggression and violence in health care professions	Rippon (2000)	University of Victoria, Canada	198	9.9	1
3.	Causes and management of patient aggression and violence: staff and patient perspectives	Duxbury & Whittington (2005)	University of Central Lancashire, UK	194	12.9	4
4.	Violence toward nurses, the work environment, and patient outcomes	Roche, Diers, Duffield & Calling-Paull (2010)	University of Technology, Australia	194	19.4	2
5.	Violence against nurses and its impact on stress and productivity	Gates, Gillespie & Succop (2011)	University of Cincinnati, USA	182	20.2	2
6.	Work-related factors and violence among nursing staff in the European NEXT study: A longitudinal cohort study	Camerino, Estryn-Behar, Conway, van Der Heijden & Hasselhorn (2008)	University of Milan, Italy	179	14.9	2
7.	Nurse exposure to physical and nonphysical violence, bullying, and sexual harassment: A quantitative review	Spector, Zhou & Che (2014)	University of South Florida, USA	166	27.6	1
8.	Violence against nurses working in US emergency departments	Gatchi-Smith, Juarez, Boyett, Homeyer, Robinson, MacLean (2009)	Emergency Nurses Association, USA	165	15.0	2
9.	Secondary prevention of intimate partner violence-A randomized controlled trial	McFarlane, Groff, O'Brien & Watson (2006)	Texas Woman's University, USA	137	9.7	2
10.	Dating violence in college women-Associated physical injury, healthcare usage, and mental health symptoms	Amar & Gemmaro (2005)	Georgetown University, USA	124	8.2	2
11.	Prevalence of dating partner violence and suicidal ideation among male and female university students worldwide	Chan, Straus, Brownridge, Tiwari & Leung (2008)	The University of Hong Kong, Hong Kong	121	12.1	2
12.	An evaluation of interventions to decrease intimate partner violence to pregnant women	McFarlane, Soeken & Wist (2000)	Texas Woman's University, USA	114	5.7	2
13.	Workplace violence against nursing students and nurses: An Italian experience	Magnavita & Heponiemi (2011)	Catholic University of Medicine, Italy	109	12.1	2
14.	Implementation and evaluation of a practical intervention programme for dealing with violence towards health care workers	Arnetz & Arnetz (2000)	Uppsala University, Sweden	96	4.8	2
15.	How prevalent is violence towards nurses working in general hospitals in the UK?	Wells & Bowers (2002)	St Bartholomew's Hospital, UK	93	5.1	1
16.	Incidence and cost of nurse workplace violence perpetrated by hospital patients or patient visitors	Speroni, Fitch, Dawson, Dugan & Atterton (2014)	Inova Loudoun Hospital, USA	92	15.3	2
17.	The influence of personal dispositional factors and organizational resources on workplace violence, burnout, and health outcomes in new graduate nurses: A cross-sectional study	Laschinger & Grau (2012)	The University of Western Ontario, Canada	91	11.3	2
18.	Violence to staff in a general hospital setting	Whittington, Shuttleworth, Hill (1996)	University College Chester, England	90	3.7	2
19.	A systematic review of the literature: workplace violence in the emergency department	Taylor & Rew (2011)	The University of Texas, USA	85	9.4	1
20.	Enduring love: A grounded formal theory of women's experience of domestic violence	Keamey (2001)	Boston College, USA	85	4.4	3
21.	Risk factors for workplace violence in clinical registered nurses in Taiwan	Pai & Lee (2011)	Min-Hwei College of Health Care Management, Taiwan	78	8.6	2
22.	Workplace violence in healthcare settings: risk factors and protective strategies	Gillespie, Gates, Miller & Howard (2010)	University of Cincinnati, USA	74	7.4	1
23.	Adolescent dating violence: Prevalence, risk factors, health outcomes, and implications for clinical practice	Glass, Fredland, Campbell, Yonas, Sharps & Kub (2003)	Oregon Health & Science University, USA	73	4.3	1
24.	Factors associated with patient and visitor violence experienced by nurses in general hospitals in Switzerland: a cross-sectional survey	Hahn, Mueller, Needham, Dassen, Kok & Halfens (2010)	Bern University of Applied Sciences, Switzerland	73	7.3	2
25.	The impact of workplace violence on nurses in South Taiwan	Lin & Lu (2005)	I-Shou University, Taiwan	72	4.8	2
26.	More than military sexual trauma: interpersonal violence, PTSD, and mental health in women veterans	Kelly, Skelton, Patel & Bradley (2011)	Atlanta VA Medical Center, USA	70	7.7	2

**TABLE 2: The descriptive characteristics of the 100 most cited studies about violence (continued).**

Rank	Title	Author(s)/year	First author institution and country	Cited	Citation density <sup>1</sup>	Type of study <sup>2</sup>
27.	Violence in mental health care: the experiences of mental health nurses and psychiatrists	Nolan, Dallender, Soares, Thomson & Arnetz (1999)	University of Birmingham, England	67	3.1	2
28.	Patient-related violence against emergency department nurses	Pich, Hazellon, Sundin & Kable (2010)	The University of Newcastle, Australia	67	6.7	1
29.	Incidence of violence towards staff caring for the elderly	Astrom, Bucht, Eisemann, Norberg & Saveman (2002)	Umeå University, Sweden	64	3.5	2
30.	Violence towards nursing staff in emergency departments in one Turkish city	Ergun & Karadaoğan (2005)	Ege University, Turkey	63	4.2	2
31.	Workplace violence and occupational stress in healthcare workers: a chicken-and-egg situation results of a 6-year follow-up study	Magnavita (2014)	Università Cattolica del Sacro Cuore, Italy	63	10.5	2
32.	The relationship between community violence exposure and mental health symptoms in urban adolescents	McDonald & Richmond (2008)	University of Pennsylvania, USA	63	5.2	1
33.	Violence against nurses in healthcare facilities in Kuwait	Adb, Al-Shatti, Kamal, El-Gerges & Al-Ragab (2002)	Kuwait University, Kuwait	62	3.4	2
34.	A systematic review of the safety and effectiveness of restraint and seclusion as interventions for the short-term management of violence in adult psychiatric inpatient settings and emergency departments	Nelstrop, Chandler-Oatts, Bingley, Bleelman, Corr, Cronin-Davis, Fraher, Hardy, Jones, Gourney, Johnston, Pereira, Pratt, Tucker & Tsuchiya (2006)	Mahidol University, Thailand	61	4.3	1
35.	Patient and visitor violence in the general hospital: occurrence, staff interventions and consequences: a cross-sectional survey	Hahn, Hamikainen, Neetham, Kok, Dassen & Hallens (2012)	Bern University of Applied Sciences, Switzerland	60	7.5	2
36.	A syndemic model of substance abuse, intimate partner violence, HIV infection, and mental health among Hispanics	Gonzalez-Guarda, Florom-Smith & Thomas (2011)	University of Miami, USA	60	6.6	1
37.	De-escalating aggression and violence in the mental health setting	Cowin, Davies, Estial, Berlin, Fitzgerald & Hoot (2003)	The University of Sydney, Australia	59	3.4	2
38.	A descriptive study of the perceptions of workplace violence and safety strategies of nurses working in level I trauma centers	Calteite (2005)	Mid Delta Health Systems, USA	59	3.9	2
39.	Threats and violence in Swedish care and welfare-magnitude of the problem and impact on municipal personnel	Merckel & Viltsara (2002)	National Institute for Working Life, Sweden	58	3.2	2
40.	Intimate partner violence and reproductive health of women in Kenya	Emenike, Lawoko & Dalal (2008)	Karolinska Institute, Sweden	53	4.4	2
41.	Workplace violence: Differences in perceptions of nursing work between those exposed and those not exposed: A cross-sector analysis	Hegney, Tuckett, Parker & Eley (2010)	The National University of Singapore, Australia	52	5.2	2
42.	Women's attitudes to being asked about exposure to violence	Stenson, Saarinen, Heimer & Sidenvall (2001)	Uppsala University Hospital, Sweden	51	7.1	3
43.	Junior nursing students' experiences of vertical violence during clinical rotations	Thomas & Burk (2009)	University of Tennessee, USA	51	4.6	3
44.	Cross-cultural factors in disclosure of intimate partner violence: an integrated review	Montalvo-Liendo (2009)	University of Texas, USA	50	4.5	1
45.	Stamp: components of observable behaviour that indicate potential for patient violence in emergency departments	Luck, Jackson & Usher (2007)	James Cook University, Australia	50	3.8	4
46.	Physical health and posttraumatic stress disorder symptoms in women experiencing intimate partner violence	Woods, Hall, Campbell & Angott (2008)	The University of Akron College of Nursing, USA	50	4.1	2
47.	Risk factors associated with patient and visitor violence in general hospitals: Results of a multiple regression analysis	Hahn, Mueller, Hamikainen, Kok, Dassen & Hallens (2013)	Bern University of Applied Sciences, Switzerland	49	7.0	2
48.	Violence in psychiatric-hospitals: are certain staff prone to being assaulted	Whittington & Wykes (1994)	Chester College, England	49	1.8	2
49.	Prevalence and perpetrators of workplace violence by nursing unit and the relationship between violence and the perceived work environment	Park, Cho, Hong (2015)	The Catholic University of Korea, Korea	49	9.8	2
50.	Workplace violence against Iranian nurses working in emergency departments	Esmailpour, Salsali, Ahmadi (2011)	Tehran University of Medical Sciences, Iran	48	5.3	2

**TABLE 2: The descriptive characteristics of the 100 most cited studies about violence (continued).**

Rank	Title	Author(s)/year	First author institution and country	Cited	Citation density <sup>1</sup>	Type of study <sup>2</sup>
51.	Innocent or culpable? Meanings that emergency department nurses ascribe to individual acts of violence	Luck, Jackson, Usher (2007)	University of Western Sydney, Australia	48	3.6	4
52.	Workplace violence among Iraqi hospital nurses	Abualrub, Khalifa & Habbib (2007)	Jordan University of Science and Technology, Jordan	47	3.6	2
53.	Psychosocial precursors and physical consequences of workplace violence towards nurses: A longitudinal examination with naturally occurring groups in hospital settings	Yang, Spector, Chang, Gallant-Roman & Powell (2012)	Portland State University, USA	46	5.7	2
54.	Patient-related violence at triage: A qualitative descriptive study	Pich, Hazlebin, Sundin & Kable (2011)	The University of Newcastle, Australia	46	5.1	3
55.	A survey of violence against staff working in the emergency department in Ankara, Türkiye	Talas, Kocaoz & Akguc (2011)	Ankara University, Türkiye	45	5.0	3
56.	An integrative literature review of interventions to reduce violence against emergency department nurses	Anderson, FitzGerald & Luck (2010)	52 St Albans Rd, Mount Louisa, Australia	44	4.4	1
57.	Occupational violence and assault in mental health nursing: A scoping project for a Victorian Mental Health Service	McKinnon & Cross (2008)	Mental Health Services, Australia	43	3.5	2
58.	Domestic violence during pregnancy: Implications for practice	Espinosa & Osborne (2002)	South 23rd Street #3, USA	43	2.3	1
59.	HIV risks, substance abuse, and intimate partner violence among Hispanic women and their intimate partners	Gonzalez-Guarda, Peragallo, Umutlu, Vasquez & Mirani (2008)	University of Miami, USA	42	3.5	4
60.	Gay identity, interpersonal violence, and HIV risk behaviors: An empirical test of theoretical relationships among a probability-based sample of urban men who have sex with men	Relif, Huang, Campbell & Catania (2004)	Georgetown University, USA	42	2.6	2
61.	Aggression and violence in mental health services: categorizing the experiences of Irish nurses	Maguire & Ryan (2007)	Athlone Institute of Technology, Ireland	42	3.2	2
62.	Exposure of mental health nurses to violence associated with job stress, life satisfaction, staff resilience, and post-traumatic growth	Iztraki, Peles-Bortz, Kositsky, Baromy Fishitsky & Blustein (2015)	Tel Aviv University, Israel	41	8.2	2
63.	Hispanic women's experiences with substance abuse, intimate partner violence, and risk for HIV	Gonzalez-Guarda, Vasquez, Urrutia, Villarruel & Peragallo (2011)	University of Miami, USA	41	4.5	3
64.	A comparative study of the experiences of English and Swedish mental health nurses	Nolan, Soares, Dalender, Thomsen & Arnetz (2001)	The University of Birmingham, UK	40	2.1	2
65.	Verbal and physical violence in emergency departments: a survey of nurses in İstanbul, Türkiye	Phar & Ucmak (2011)	Yeditepe University, Türkiye	39	4.3	2
66.	Revisiting cognitive rehearsal as an intervention against incivility and lateral violence in nursing: 10 years later	Griffin & Clark (2014)	Boise States University, USA	39	6.5	1
67.	Nurses' perceptions of the factors which cause violence and aggression in the emergency department: A qualitative study	Angland, Dowling & Casey (2014)	Galway University Hospital, Ireland	38	6.3	3
68.	The protective role of tangible support on post-traumatic stress disorder symptoms in urban women survivors of violence	Glass, Perrin, Campbell & Soeken (2007)	The Johns Hopkins University, USA	38	2.9	2
69.	Examining the characteristics of workplace violence in one non-tertiary hospital	Chapman, Styles, Perry & Combs (2010)	University of Western Australia, Australia	37	3.7	4
70.	Violence in the care of adult persons with intellectual disabilities	Strand, Benzein & Saweman (2004)	Kalmar University, Sweden	37	2.3	2
71.	Physical violence in the workplace among Jordanian hospital nurses	AbuARub & Al-Asmar (2011)	Jordan University of Science and Technology, Jordan	37	4.1	2
72.	Oppression and exposure as differentiating predictors of types of workplace violence for nurses	Rodwell & Demir (2012)	Australian Catholic University, Australia	36	4.5	2
73.	A conceptual framework for research on lifetime violence, posttraumatic stress, and childbearing	Seng (2002)	University of Michigan, USA	36	2.0	1
74.	Identifying intimate partner violence at entry to prenatal care: Clustering routine clinical information	Anderson, Marshak & Hebbeler (2002)	Loma Linda University, USA	36	2.0	2

**TABLE 2:** The descriptive characteristics of the 100 most cited studies about violence (continued).

Rank	Title	Author(s)/year	First author institution and country	Cited	Citation density <sup>1</sup>	Type of study <sup>2</sup>
75.	Substance abuse, violence, HIV, and depression an underlying syndemic factor among Latinas	Gonzalez-Guarda McCabe, Florom-Smith, Cianelli, & Peragallo (2011)	University of Miami, USA	36	4.0	2
76.	Care for emergency department patients who have experienced domestic violence: a review of the evidence base	Olive (2007)	University of Central Lancashire, UK	35	2.6	1
77.	Survival of intimate partner violence as experienced by women	Flinck, Paavilainen, Asted-Kurki (2005)	National Research and Development Centre for Welfare and Health (STAKES), Finland	35	2.3	3
78.	Using action research to plan a violence prevention program for emergency departments	Gates, Gillespie, Smith, Rode, Kowalenko, Smith (2011)	University of Cincinnati, USA	35	3.8	3
79.	Violence against pregnant women will remain hidden as long as no direct questions are asked	Edin & Hogberg (2002)	Umeå University, Sweden	35	1.9	3
80.	Partner abuse in physically disabled women: A proposed model for understanding intimate partner violence	Copel (2006)	Villanova University, USA	35	2.5	3
81.	Horizontal violence among nursing students	Longo (2007)	Florida Atlantic University, USA	34	2.6	2
82.	The management of aggression and violence attitude scale (MAVAS): A cross-national comparative study	Duxbury, Hahn, Needham, Pulsford (2008)	University of Central Lancashire, UK	33	2.7	2
83.	Perceiving risk in dangerous situations: risks of violence among mental health inpatients	Treroweth (2003)	Thames Valley University, UK	33	2.1	3
84.	Intimate partner violence screening and brief intervention: Experiences of women in two New Zealand health care settings	Kozlowski, Giddings, Rameka, Fyfe (2008)	Auckland University of Technology, New Zealand	33	2.7	3
85.	Violence and aggression: a literature review	Woods & Ashley (2007)	University of Saskatchewan, Canada	33	2.5	1
86.	Midwives' experiences of routine antenatal questioning relating to men's violence against women	Stenson, Sidenwall, Heimer (2005)	Uppsala University, Sweden	33	2.2	3
87.	Women's responses to screening for domestic violence in a health-care setting	Webster, Stratigos, Gimes (2001)	Royal Women's Hospital, Australia	33	1.7	2
88.	The emotional impact of sexual violence research on participants	Draucker (1999)	Kent State University, USA	32	1.5	1
89.	The dark side of the job: Violence in the emergency department	Ray (2007)	Emergency Nurses Association, USA	32	2.4	1
90.	Confronting barriers to universal screening for domestic violence	Davis & Harsh (2001)	Millersville University, USA	32	1.6	1
91.	Predicting immune status in women from PTSD and childhood and adult violence	Woods, Wineman, Page, Hall, Alexander, Campbell (2005)	University of Akron College of Nursing, USA	31	2.1	2
92.	Workplace violence and abuse against nurses in hospitals in Iran	Shoghi, Sanjani, Shirazi, Heidari, Salemi, Mirzabeigi (2008)	Karaj Islamic Azad University, Iran	31	2.5	2
93.	Threats and violence in the Swedish pre-hospital emergency care	Petzall, Tallberg, Lundin, Suserud (2011)	Karlstad University, Sweden	31	3.4	2
94.	Personal safety, violence, and home health	Fazzone, Baroon, McConnell, Chitty (2000)	The University of Kansas, USA	31	1.5	3
95.	Stages of change-based nursing interventions for victims of interpersonal violence	Heggerty & Goodman (2003)	Boston College, USA	30	1.7	1
96.	Breaking the barriers: The promise of computer-assisted screening for intimate partner violence	Renker (2008)	Ohio State University, USA	30	2.5	1
97.	'It is still so deep-seated, the fear': psychological stress reactions as consequences of intimate partner violence	Lindgren & Renck (2008)	Karlstad University, Sweden	30	2.5	4
98.	Workplace violence against nurses in emergency departments in Jordan	ALBashlawy (2013)	AL al-Bayt University, Jordan	29	4.1	2
99.	Myths and stereotypes: how registered nurses screen for intimate partner violence	Robinson & Ruhie (2010)	CHRISTUS Hospital, USA	29	2.9	3
100.	Violence-related content in the nursing curriculum: A follow-up national survey	Woodtli & Breslin (2002)	University of Arizona, USA	29	1.6	2

<sup>1</sup>Citation density: mean number of citations per year. <sup>2</sup>Type of study: (1) theoretical studies including literature reviews, systematic reviews and meta-analyses; (2) empirical quantitative studies; (3) empirical qualitative studies (4) mixed studies; PTSD: Post-traumatic stress disorder; HIV: Human immunodeficiency virus.



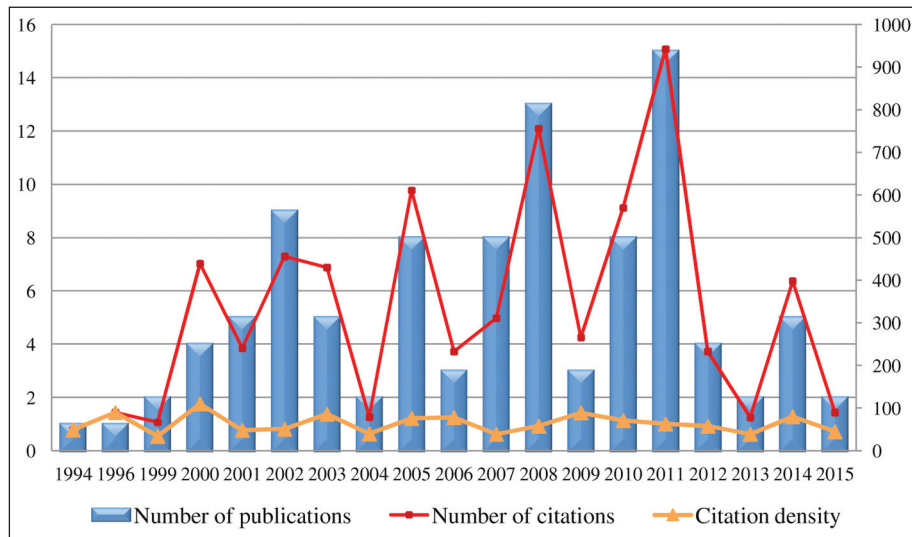


FIGURE 2: The number of publications, citations density and citations by years.

TABLE 3: Authors who published the 100 most cited studies on violence.

Author	Institution/country	Number of studies
Jacquelyn C. Campbell	The Johns Hopkins University, School of Nursing, Baltimore, USA	4
Sabine Hahn	Bern University of Applied Sciences, Applied Research and Development in Nursing, Switzerland	4
Ian Needham	St. Gallen University of Applied Sciences, The Institute of Applied Nursing Science, Switzerland	4
Bengt Arnetz	Uppsala University, Department of Public Health and Caring Sciences, Section of Social Medicine, Uppsala, Sweden	3
Donna M. Gates	University of Cincinnati, College of Nursing, Cincinnati, USA	3
Rosa M. Gonzalez-Guarda	University of Miami, School of Nursing and Health Studies, Coral Gables, Florida, USA	3
Ruud J. G. Halfens	Maastricht University, Department of Health Care and Nursing Science, Maastricht, Netherlands	3
Gerjo Kok	Maastricht University, Department of Work and Social Psychology, Maastricht, Netherlands	3
Lauretta Luck	University of Western Sydney, School of Nursing & Midwifery, Penrith South, Australia	3
Richard Whittington	University of Liverpool, School of Health Sciences, Liverpool, UK	3

est in Nursing Economics (CD=182), Journal of Nursing Administration (CD=165) and Nursing Research (CD=99) (Table 4).

It was also reported that 43.75% of all journals were in Q1 category (n=14), 28.12% in Q2 category (n=9), 25% in Q3 category (n=8) and 3.12% in Q4 category (n=1). 59.0% of all studies were reported to be in Q1 category journals (Table 4). Moreover, journals in Q1 category had 65.17% of all citations. 50% of these journals were published in the USA, 46.88% in UK, and 3.12% in Singapore. 36% of all studies were published in the USA and 62% of them were published in UK. Finally, 65.70% of all citations (4,186 citations) were recorded in UK based journals.

## DISCUSSION

This study aimed to analyze the 100 most cited studies on violence in the nursing category of JCR and to elaborate the most significant articles, authors, institutions, countries, journals, and study types. It was concluded that the results of this study would certainly provide a framework for the development of violence research in nursing and pave the way for future nursing practice and research.

The number of citations is a crucial indicator of the value of a scientific study.<sup>15</sup> Hack et al. proposed to categorize studies with 10 or more citations as good papers, studies with 50 and more citations as very good papers, and studies with 100 and more ci-

**TABLE 4:** Journals with the most cited 100 studies on violence.

Journal name	Number of studies	Number of citations	Citation density <sup>1</sup>	Quartile in nursing category	Country
Journal of Advanced Nursing	13	1,248	96.0	Q1	UK
International Journal of Nursing Studies	8	705	88.1	Q1	UK
Journal of Clinical Nursing	11	547	49.7	Q1	UK
Journal of Nursing Scholarship	5	462	92.4	Q1	UK
Journal of Midwifery & Womens Health	7	349	49.8	Q2	USA
Nursing Research	3	297	99.0	Q1	USA
Journal of Emergency Nursing	5	217	43.4	Q2	USA
Public Health Nursing	3	205	68.3	Q3	UK
International Nursing Review	4	193	48.2	Q2	UK
Research in Nursing & Health	3	193	64.3	Q1	USA
Nursing Economics	1	182	182.0	Q3	USA
Journal of Psychiatric and Mental Health Nursing	4	168	42.0	Q1	UK
Journal of Nursing Administration	1	165	165.0	Q3	USA
Midwifery	4	152	38.0	Q1	USA
International Journal of Mental Health Nursing	3	143	47.6	Q1	UK
Scandinavian Journal of Caring Sciences	2	122	61.0	Q2	UK
International Emergency Nursing	3	115	38.3	Q2	UK
JOGNN-Journal of Obstetric Gynecologic and Neonatal Nursing	2	103	51.5	Q3	USA
JANAC-Journal of The Association of Nurses in AIDS Care	2	84	42.0	Q2	USA
Journal of Transcultural Nursing	2	78	39.0	Q3	USA
Asian Nursing Research	2	76	38.0	Q3	SINGAPORE
Rehabilitation Nursing	1	74	74.0	Q2	USA
Nursing & Health Sciences	1	67	67.0	Q1	UK
Archives of Psychiatric Nursing	2	66	33.0	Q2	UK
Worldviews on Evidence-Based Nursing	1	61	61.0	Q1	UK
International Journal of Nursing Practice	1	52	52.0	Q3	UK
Nursing Outlook	1	51	51.0	Q1	USA
Journal of Continuing Education in Nursing	1	39	39.0	Q4	USA
Perspectives in Psychiatric Care	1	35	35	Q3	USA
Journal of Professional Nursing	1	32	32	Q1	UK
Advances in Nursing Science	1	31	31	Q2	USA
Journal of Nursing Education	1	29	29	Q1	USA

<sup>1</sup>Citation density: number of citations per journal.

tations as excellent papers, and studies with more than 159 citations as exceptional papers.<sup>16</sup> The analysis of the 100 most cited studies indicated that the number of citations ranged between 15 and and that the top eight studies received 159 and more citations. Therefore, it can be reasonably concluded that the top eight studies were exceptional papers. Martín-Del-Río et al. carried out a bibliometric study on stress in nursing journals in the WoS database and reported only one exceptional paper.<sup>14</sup> Cant & Cooper analyzed simulation in nursing articles in the Scopus database and found 12 exceptional papers.<sup>13</sup> In light

of these results, nursing studies on violence have already become canonical.

It was further reported that the most cited study on violence was (235 citations) conducted by McKenna et al. and published in Journal of Advanced Nursing which was entitled “Horizontal Violence: Experiences of Registered Nurses in Their First Year of Practice.” Violence is growingly posing a challenge for nurses.<sup>17</sup> Hippeli argued that horizontal violence has been known to be a major concern for new graduate nurses and claimed that only a little has been done to tackle the problem.<sup>18</sup> The number of citations

in a study is basically determined by the scientific competency of a study, its methodological design, financial support, the number of authors and the research topic among many other factors.<sup>19</sup> The number of citations might be associated with its focus on a currently popular research topic.

The study results also demonstrated that the top 3 studies with the highest citation density were conducted after 2010 and these studies also had the highest number of citations, which confirmed that the studies with the highest citations density would be the most recent studies and also have the highest number of citations. Similarly, Shuaib et al. reported that the most recent studies received more citations.<sup>20</sup> It has been widely accepted that a study might likely to receive more citations with the passing of the years, which was contradicted with our findings.<sup>21</sup> It might be deduced that studies on violence particularly address current problems of nurses and therefore they might have the high number of citations.

The type of study might also affect the number of citations.<sup>22</sup> However, it has been already found that quantitative studies had relatively higher number of citations and it was occasionally reported that research articles had the highest number citations.<sup>14,23</sup> It has been additionally noted that review studies had higher number of citations than research articles.<sup>24</sup> Our findings also confirmed that quantitative studies received more citations than other types of studies.

The study findings also suggested that Journal of Advanced Nursing, International Journal of Nursing Studies and Journal of Clinical Nursing were the leading scientific journals in Q1 category with high impact factors. It has been widely assumed that journals with high impact factors publish high quality studies and in turn receive more citations, which was confirmed by the findings of our study.<sup>14</sup>

## LIMITATIONS

This study makes an undeniable contribution to the scientific literature but it still has some limitations.

One of those limitations is that the literature review was confined with only WoS database. Another limitation is that this review focused on studies only in nursing journals and excluded all other studies published elsewhere.

## CONCLUSION

This study bears much significance as it is the first study that investigated the 100 most cited studies on violence in nursing journals with a bibliometric analysis. It was consequently reported that violence is an active field of study in nursing research, that the leading country was the USA, and that most studies were published in journals with high impact values. Nursing scholars that might be interested in conducting further researches on violence are recommended to follow Journal of Advanced Nursing, International Journal of Nursing Studies and Journal of Clinical Nursing and to take the findings of this particular study into consideration for future research.

### Source of Finance

*During this study, no financial or spiritual support was received neither from any pharmaceutical company that has a direct connection with the research subject, nor from a company that provides or produces medical instruments and materials which may negatively affect the evaluation process of this study.*

### Conflict of Interest

*No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.*

### Authorship Contributions

**Idea/Concept:** Hande Yeşilbaş, Filiz Kantek; **Design:** Hande Yeşilbaş, Filiz Kantek; **Control/Supervision:** Hande Yeşilbaş, Filiz Kantek; **Data Collection and/or Processing:** Hande Yeşilbaş, Filiz Kantek; **Analysis and/or Interpretation:** Hande Yeşilbaş, Filiz Kantek; **Literature Review:** Hande Yeşilbaş; **Writing the Article:** Hande Yeşilbaş, Filiz Kantek; **Critical Review:** Hande Yeşilbaş; **References and Fundings:** Hande Yeşilbaş, Filiz Kantek; **Materials:** Hande Yeşilbaş, Filiz Kantek.

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