

Workplace bullying among nurses: A systematic review



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Abstract Bullying victims are terrified, irritated, ostracized, belittled, robbed of resources, isolated, and prohibited from asserting their rights. Victims of bullying have worse work satisfaction, performance outcomes, engagement, and creativity. It also harms victims' social ties inside and outside the institution. To perform a systematic literature review on workplace bullying among nurses. Articles for review were collected from the SCOPUS database. After excluding and limiting the needed fields, the number of documents was limited to 202 (2004-2022). PRISMA is used for systematic flowcharts, and R-studio software is used for analyzing the articles. A total of 202 papers were published in 103 publications. Among the 202 papers, 28 articles used nurses as the study population. Overall, 2020 is the year with the highest number of annual productions, accounting for up to 35. The *Frontiers in Psychology* has the greatest number of publications compared to others, with a total number of 12; it mostly connects to the author named Einarsen SV, Harris A. The greatest co-occurrence score is for bullying. From 2004 to 2022, the major themes that were well-developed and significant to workplace bullying were behavior and conflict. Among the 202 journals, the most cocitation is performed by the author Lemann H (1966). The research from various studies reveals that people are more conscious that bullying is wrong and unacceptable, but it is often being reported. This systematic review analyzed workplace bullying among nurses based on a vast amount of empirical evidence published between 2004 and 2022.

Keywords: workplace bullying, nurse, systematic review

1. Introduction

Workplace bullying (WB) is defined in the scholarly literature as acts of harassment, social exclusion, and offending or negatively affecting someone's work-related tasks (Einarsen et al., 2003). The term "bullying" appears for the first time in Carroll M. Brodsky's seminal book "The harassed worker" (1976). However, the first peer-reviewed scientific article explicitly referring to the WB concept was published in 1989 in Norwegian (Matthiesen & Einarsen, 2001), and Leymann published the first English language research article on WB in 1996.

Bullying can have serious consequences for the victim, the perpetrator, bystanders, and the organization. Victims in such situations may require immediate intervention, advocacy, and mentoring from administrative and academic leaders (Ullah et al., 2018). Workplace bullying has become a common and significant problem in modern workplaces that can cause severe harm to both individuals and organizations. It refers to the unjust and persistent treatment of employees, which can manifest in various forms, such as verbal abuse, intimidation, humiliation, and exclusion (Vijayakumar & Rajagopal, 2023). Workplace bullying is a significant inducer of employees' knowledge-hiding behaviors, and the mediating effect of emotional exhaustion and organizational identification is the influencing mechanism of this relationship (Yao et al., 2020). Bullying in the workplace should be viewed as a completely unacceptable and unethical behavior. Bullying prevention policies must address organizational culture while also addressing the challenge of developing psychosocial safety in workplaces. Interventions that promote a new management and leadership framework, increase democratic values, and encourage employee participation in work decisions should be implemented and evaluated to provide better parameters for occupational health practice (Salin, n.d., 2021).

Nursing has long been known as a challenging profession beset by job difficulties such as pressure and harassment, the latter of which is concerning. Nurse bullying is not a unique phenomenon; researchers have been studying it for over 25 years. This issue was hypothesized to plague nurses in the United States (US) more than 100 years ago, according to a 1909 *New York Times* story titled "The Hospital Tyrants" (Castronovo et al., 2016). Unfortunately, despite years of research, nurses are still mistreated today. Many leaders, institutions, and even nurses either deny the occurrence of bullying or accept it as the norm, creating a culture of silence that impedes problem-solving solutions. Workplace bullying is a term used in the nursing literature to describe a wide range of workplace aggression and violence, from psychological abuse to violent threats and actual assault (Houck & Colbert, 2017). Incivility, harassment, and workplace violence are all terms that fall under this category. The issue has been intensively researched internationally across disciplines, notably in hospital contexts (Houck &



Colbert, 2017). Workplace bullying happens when people believe they have been the subject of unfavorable acts from one or more others over time.

Bullying behaviors, such as verbal abuse, have been demonstrated to negatively impact nurses' ego, work satisfaction, attitude, patient safety, productivity levels, and professional errors. In addition, victims of workplace psychological violence have worse work satisfaction, performance outcomes, desire, and efficiency, as well as disruptions in social connections both inside and outside the institution ((Cowie et al., 2002)(Einarsen, 2000); (Niedl, 1996)). Individuals subjected to workplace psychological violence cannot perform their duties due to the harm they have suffered. Individuals who are bullied begin to utilize sick leave to relieve pressure and agony, quit under pressure or freely, or are fired or forced to retire early due to psychiatric violence (Jackson & Maguire, 2002). Employees experiencing bullying have an increased likelihood of leaving the organization, and bullying has been linked to the present nursing workforce recruitment and retention issue. According to (Spector et al., 2014) research paper on the nature and causes of bullying among nurses, 36.4% of 151,347 nurses had been physically attacked, 66.9% had been otherwise abused, 39.7% were bullied, 25% had been sexually harassed, and 32.7% had already reported injuries from aggravated attacks. Rates of exposure varied by geography, with English-speaking countries reporting the highest levels of physical assault and sexual harassment and the Middle East having one of the highest levels of nonphysical violence and bullying. These findings show that workplace bullying is a severe psychological phenomenon that has a detrimental influence on both individuals and organizations (Zapf et al., 2011).

Several systematic evaluations have been conducted to assess workplace bullying among nurses. Because of the variability in the workplace, the majority of the included studies, study designs, measurement techniques, and contextual factors produced conflicting or inconclusive conclusions on the incidence, causes, and consequences of workplace bullying. Some studies, for example, focused solely on the frequency of workplace bullying, whereas others concentrated on its triggering elements. Other studies, however, have exclusively looked at the consequences of workplace bullying (Castronovo et al., 2016). Numerous reviews make it difficult for tough nursing executives to comprehend the scope and intensity of workplace bullying and intervene less alone. The research questions were as follows:

R1: Which core research themes of WB have been explored in the last decade?

R2: How to approach WB in future research?

2. Methodology and Data Analysis

The identification of the source or database must be of high quality and reliability for its bibliographic extraction. Therefore, following the methodological criteria of (de la Cruz del Río-Rama et al., 2020) in choosing the source, it was decided to carry out the study using the Scopus database, chosen mainly for its quality standards, broad coverage in the collection of information (Scopus currently has 1.7 billion cited references dating from 1970), ease in downloading data, and excellent coverage of journals(Harzing & Alakangas, 2016). The search query included the words "(Workplace bullying OR mobbing) AND (Nurse)." Filters were applied to the retrieved results. The study selected final papers from English language journals. For the search query, the Scopus database retrieved 202 articles. R software was used to analyze the data. A systematic literature review (SLR) identifies, selects, and critically evaluates material to address a specific topic.

The findings are based on four types of analyses: descriptive, conceptual, intellectual, and social-structural. The descriptive analysis includes author profiles, papers, author keywords, countries, and institutions that have conducted WB & nursing research. This analysis considers bibliometric variables such as publishing and citation structure, most prolific nations, authors, and institutions, influential publications, author dominance factor, cited references, and author keyword characteristics. The number of articles coauthored by different countries/regions, institutions, and writers is calculated to show their collaborative links (Higaki et al., 2020).

The investigation of the conceptual structure reveals several important topics and subjects studied in WB among nurses. This was accomplished by cword analysis utilizing the author's keywords. Co-occurrence analysis counts the number of times two terms appear in the same article to determine their relationship. Six scientometric techniques are employed in this study to provide keyword analysis and visualization networks of publications, sources, and authors. By measuring the citation frequency in each period, burst detection analysis demonstrates the merging patterns of keywords, authors, and references. Citation analysis examines the number of citations to determine the effect and quality of countries/regions, organizations, sources, and writing. The cocitation network and historical direct citation network analyses were graphically displayed for intellectual structure. The approach of historiographic mapping is based on (Garfield, n.d.2004), in which each historical path represents a research subject and its significant text.

Social structure analysis was undertaken on the workplace bullying issue to examine how nations and institutions are related. Both national and institutional collaboration networks have been shown to emphasize this relationship. Thematic evolution studies portray the evolution of the field, variations in research orientations, and field trends by examining the evolutionary paths of themes using centrality and density indices. In cword analysis, a factorial approach based on multiple correspondence analysis (MCA) was used to generate the conceptual structure map, and k-means clustering was used to

cluster the documents that revealed the same idea. The study's data were analyzed using performance analysis and scientific mapping.

The R programming language was utilized to perform scientific mapping analysis. In this study, a three-field plot test was performed to identify the proportion of research topics for each country and the recency of the papers that they cited. A co-occurrence network test is performed to analyze text that includes a graphic visualization of potential relationships between people, organizations, concepts, and biological organisms such as bacteria or other entities represented within written material. A thematic map test is performed to show the spatial distribution of one or more specific data themes for selected keywords. Cocitation analysis was used to detect relationships between articles by determining which articles cited other pairs of articles. The Author Collaboration Network is an ego graph that depicts the collaboration between an author and other authors in a dataset. The country collaboration map depicts a map of the top countries' collaboration in workplace bullying research. An extensive review of research articles in each field showed research shortages. These research ideas can be used in future studies to fill knowledge gaps.

2.1. PRISMA

The screening process is summarized in the PRISMA flow diagram (Figure 1). It first counts the number of articles discovered before making the selection process visible by reporting on decisions made at different phases of the systematic review. At each level, the number of articles is noted. In the Scopus database, articles were searched using the advanced search with the key terms (“Workplace bullying” OR Mobbing) And (nurse*) using TITLE-ABS-KEY, and 1031 records were found according to this search field. The article search was limited to the year 2022, which excluded 77 articles from the record. In the final analysis, it was found that there are articles from the year 2004 to 2022, which sums up a total of 954 documents. Then, in the screening process, the records were limited to the ‘final publication stage’, ‘document type – article’, ‘source type – Journal’, and ‘language – English’, which excluded approximately 454 articles, resulting in a total of 709 articles. Records were then limited to open access, excluding approximately 454 articles and resulting in articles assessed for eligibility being up to 255 articles. In the final limitation, the articles are limited to research papers excluding approximately 53 articles, and the studies included in the final systematic review are 202 empirical papers. Among 202 empirical papers, 28 papers took nurses as respondents for their research (see Supplementary Material).

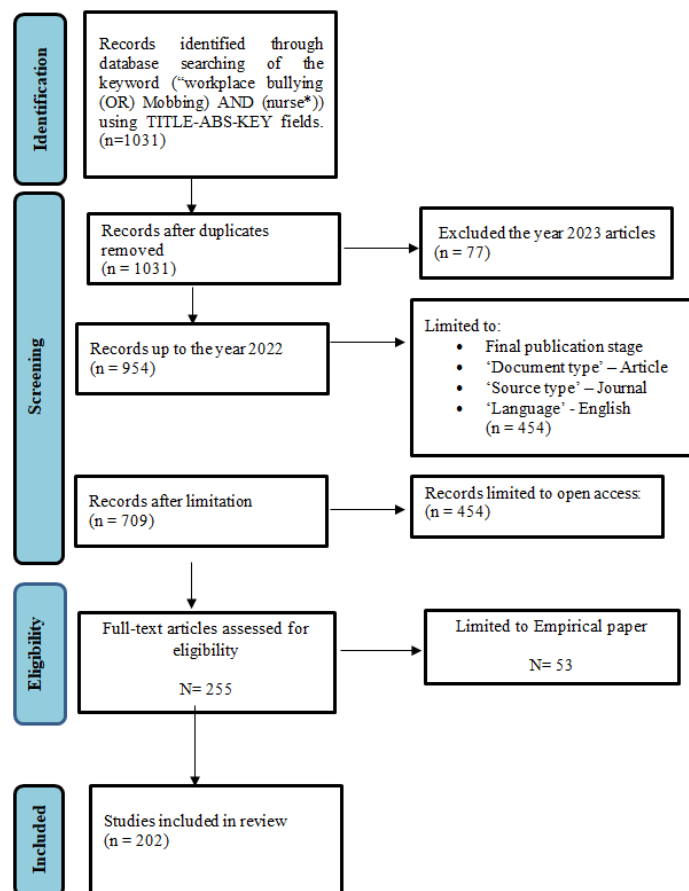


Figure 1 PRISMA flowchart.



3. Results

3.1. Descriptive Statistics

Descriptive statistics are short informative coefficients that describe a specific data collection, which might represent the complete population or a subset of a population. Measures of central tendency and measures of variability (spread) are two types of descriptive statistics.

The descriptive statistics on workplace bullying among nurses (Table 1) show 202 papers that have been published in 103 publications on the theme of workplace bullying from 2004 - 2022. To date, 789 keywords have been used in this topic, with 483 keywords used by the authors. There are 4 single-authored papers and 762 multiauthored papers, for a total of 766 authors for 202 empirical publications.

Table 1 Descriptive statistics of workplace bullying among nurses.

Description	Results
MAIN INFORMATION ABOUT THE DATA	
Timespan	2004:2022
Sources (Journals, Books, etc.)	103
Documents	202
Average years from publication	4.57
Average citations per document	17.25
Average citations per year per doc	2.687
References	9553
DOCUMENT TYPES	
Article	202
DOCUMENT CONTENTS	
Keyword Plus (ID)	789
Author’s Keywords (DE)	483
AUTHORS	
Authors	766
Author Appearances	884
Authors of single-authored documents	4
Authors of multiauthored documents	762
AUTHORS COLLABORATION	
Single-authored documents	4
Documents per Author	0.226
Authors per Document	4.43
C0-Authors per Documents	5.11
Collaboration Index	4.51

3.2. Annual Production

Annual production in research refers to the number of publications done on a particular topic in a year (Table 2). From 2004 – 2022, we can see that the range of products has gradually increased in the main topic of “workplace bullying among nurses”. In 2004, there was only one product of the article overall. The case was the same in almost every year up to 2013, which was in single-digit production. From the year 2014, it gradually increased where it stated 12 productions in a year, but there was a sudden downfall in the year 2016, which resulted in a single-digit production. Overall, 2020 is the only year that produced approximately 35 studies, which is considered the highest production.

Table 2 Annual Production.

Year	Articles	Year	Articles
2004	1	2014	12
2006	2	2015	11
2007	1	2016	7
2008	1	2017	15
2009	3	2018	20
2010	2	2019	20
2011	4	2020	35
2012	2	2021	31
2013	6	2022	29

3.3. Three Field Plot



Thematic maps are constructed by stacking layers, in which data from each layer are mapped to one or more perspectives. They are created by grouping data from one layer and projecting it to one or more inventions. The three-field plot is made up of three elements: journals, authors, and keywords. A gray plot links and is connected to the three components. Each magazine begins with the author's name, who regularly contributes to its publication. Each contributor illustrates a topic that they regularly exploit for WB research. The size of the rectangle reflects the large number of articles related to each of these sections.

Sixteen journals (Figure 2) publish papers on workplace bullying and nurses. The frontiers in psychology have the greatest number of publications compared to others, with a total number of 12; they mostly connect with the authors named Einarsen SV, Harris A, Giorgi G, Arcangeli G, Mucci N, Skogstad A, and Hetland J. Twenty prominent researchers (Figure 2) find a place in the Three field plot. The rectangle size shows the author’s productivity. Einarsen. SV is the most prolific author.

Eighteen keywords in the study results. Since workplace bullying and nurses are common search terms, it is important to look at keywords other than these two words. Workplace bullying has approximately 38 keyword counts, with the total number of articles followed by bullying (10), aggression (7), prevalence (7), workplace mobbing (6), nurses (6), mobbing (5), stress (5), occupational health (5), harassment (5), mental health (3) and so on.

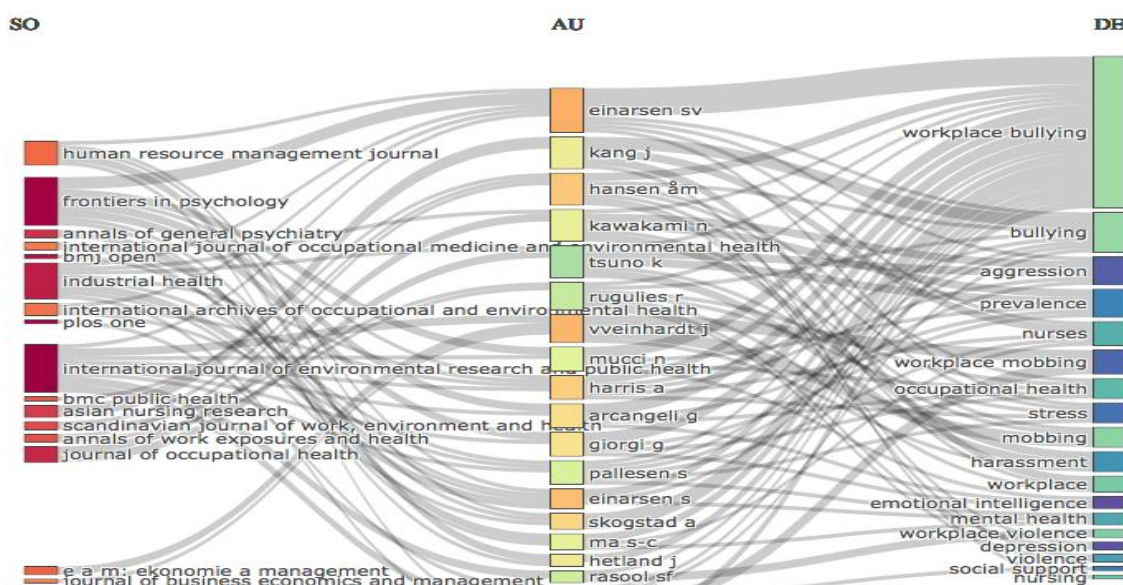


Figure 2 Three-field plot.

3.4. Co-occurrence Network

An overview of the network co-occurrence analysis published between 2004 and 2022 (Figure 3) identifies bullying, mobbing, and workplace violence as three terms that play major roles in the field of workplace bullying. The size and position of the node show this. There are four clusters displayed. The four clusters represent the four colors, which are red, blue, green, and purple. The idea behind keyword co-occurrence analysis is that the frequent co-occurrence of phrases in different articles suggests their thematic connection (Callon et al., 1983). The co-occurrence data map is based on "Author Keywords" in the title and abstract search fields of published publications. (Bornmann et al., 2018) applied the same co-occurrence analysis methodology that we used in this study.

The number and strength of cooccurring correlations between nodes were related to node size and link line width, respectively (Rodríguez-Sabiote et al., 2020). Figure 3 depicts keywords that appear in the articles. Colored clusters aid in grouping by examining the relationship between two words. According to the findings, workplace bullying employs a broader range of terms. The greatest co-occurrence score is for bullying. Other emerging keywords, such as bullying (27), mobbing (21), workplace violence (14), workplace (12), burnout (11), nursing (9), nurses (8), mental health (7), violence (7), harassment (6), nurse (6), prevalence (6), social support (5), stress (5), and workplace mobbing (5), are the keywords that have mostly been used in the articles.

3.5. Thematic Map

The thematic mapping is based on four primary themes: niche, motor, emerging or declining, and basic themes. From 2004 to 2022, the major themes that were well-developed and significant to workplace bullying were behavior and conflict. Psychological risks were highly developed and separated subjects. As indicated in Figure 4, the emerging/declining topics with low density and high importance were Lithuania and corporate social responsibility (CSR). With low density and high



significance, concepts such as social support, affective commitment, and psychological safety climate are essential to the area of workplace bullying. Basic themes are vital for the growth of the topic under study, although they are underdeveloped internally (Martínez, M.A., Cobo, M.J., Herrera, M., and Herrera-Viedma, 2015). Themes such as bullying, workplace, nursing, mental health, burnout, mobbing, and harassment are vital for the growth of WB, but they are underdeveloped, as seen in Figure 4. However, workplace bullying and bullying were the most widely used themes from 2004 to 2022.



Figure 3 Co-occurrence analysis.

Table 3 Co-occurrence.

Terms	Frequency
workplace bullying	70
bullying	26
mobbing	21
workplace violence	14
workplace	12
burnout	11
nursing	9
occupational health	9
nurses	8
mental health	7
violence	7
harassment	6
nurse	6
prevalence	6
social support	5
stress	5
workplace mobbing	5

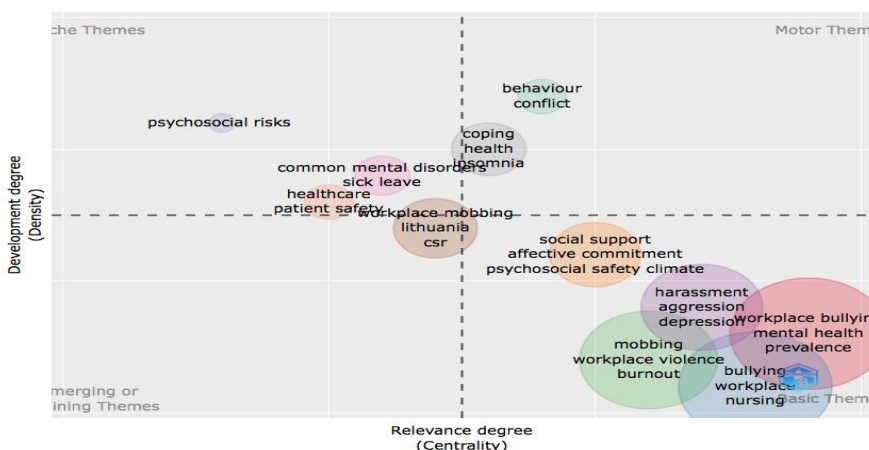


Figure 4 Thematic Map.



3.6. Cocitation Analysis

Cocitation analysis is used to determine how existing research papers are related based on authors and materials (H. Small, 1999) (H. J. Small, 1980). We devised a cocitation analysis, which assesses citation connections and frequency between two papers. Two papers cited together by another paper represent cocitation. Cocitation strength grows as they are frequently cited together, increasing the likelihood that they are semantically connected.

Among the 172 journals, the most cocitation is done with the author Lemann H (1966). Heinz Leymann (17 July 1932 – 26 January 1999) was a Swedish scholar known for his research on human mobbing. He was a psychologist with a degree in educational psychology and another in psychiatry. He was a Umea University professor. The next most cited author is Einarsen S (2009); his papers are highly focused on bullying and harassment, with the highest number of citations of approximately 45794 and an h-index of approximately 92. In general, authors that are close together have a greater degree of relatedness, and lines imply stronger cocitation relationships. The papers in each cluster are found to be tightly related by relevant cocitations, indicating the importance of papers published on different issues of workplace bullying (Figure 5).

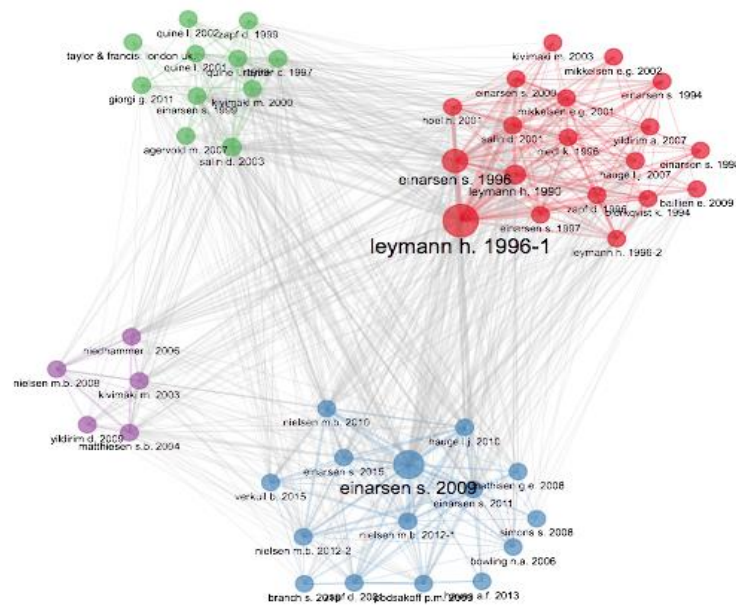


Figure 5 A cocitation analysis.

3.7. Author Collaboration

Cooperation also helps the study topic expand quickly (Wang et al., 2020). Figure 6 depicts the authors' collaborative working relationship. The thickness of the line demonstrates the writers' strong teamwork. According to the graph, Einarsen SV is the most collaborative author in the field of workplace bullying, collaborating with Hetland J, Pallesen S, Hannisdei M, and others. Einarsen S was the second most collaborative author, as demonstrated by the thickness of the line with the most coauthorship with Glambek M.

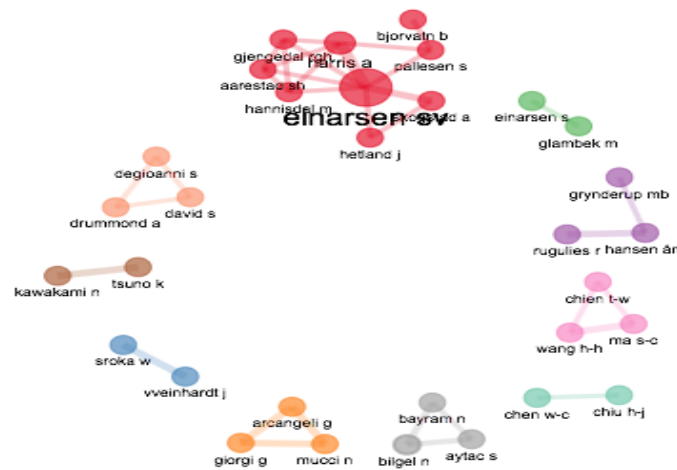


Figure 6 Author Collaboration.

3.8. Country Collaboration

The country collaboration map depicts a map of the top countries' collaboration in workplace bullying research. Norway has emerged as the top collaborator with the United Kingdom and Norway. In addition to Norway, Turkey has the greatest number of collaborations with the USA. Then, Italy with France and Ireland. Saudi Arabia has collaborated more with Lebanon. Sweden has the most collaboration with Denmark and Finland.

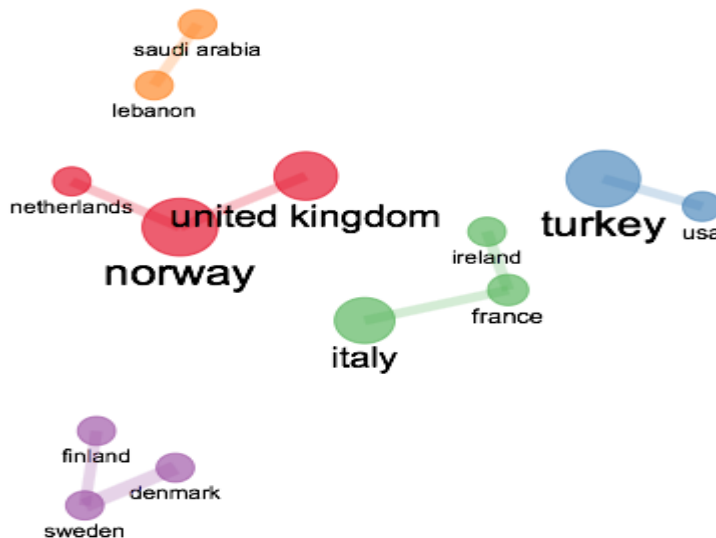


Figure 7 Country Collaboration.

4. Discussion

The purpose of this study was to evaluate the efficacy of interventions designed to reduce workplace bullying or incivility to inform future practice. Out of 1031 studies on workplace bullying among nurses, 172 were from high-income countries, primarily Europe. As a result, either no epidemiological studies on workplace bullying have been conducted in low- and middle-income countries, or their findings have not been widely disseminated. In a globalized world, it is implausible that this phenomenon is not occurring in other countries, particularly those with poor working conditions. Only two studies (Picakciefe et al., 2017) Ortega et al., 2009)) had response rates higher than 80%. According to Nielsen (2010), representative and convenience samples provide significantly different estimates of the prevalence of bullying, which may distort effect measures (Nielsen et al., 2010). On the other hand, the majority of the studies used validated instruments to measure bullying, which tends to provide a more objective measure. Although a few of Leymann's inventory adaptations have been described, the NAQ (Negative Act Questionnaire) has been used and validated in several working populations (Einarsen et al., 2009), so it is an option that improves the comparability of results.

5. Limitation

The main limitations of our review were the low response rates in the majority of the selected papers, as well as the variability of measures used to assess risk factors and outcomes, which reduced the comparability of results. Furthermore, the majority of the studies were cross-sectional and could not estimate the effect of all occupational factors on bullying, preventing strong inferences about the direction of associations. As a result, future studies with a longitudinal design and representative samples (or, at the very least, a better description of losses) are needed to clarify associations subject to reverse causation and improve the interpretation of the findings. It is necessary to deepen the understanding of the role of organizational factors in bullying causation and to emphasize the role of human resource management. The impact of work schedules, breaks, and extra hours on bullying must also be investigated.

6. Final Considerations

We have a wealth of information about workplace bullying in high-income nations, notably in Europe. However, a significant effort is still required to stimulate workplace bullying research in low- and middle-income nations. Because discrimination and harassment are more commonly reported in nondominant or disadvantaged groups, a social setting with inferior working conditions may increase the probability of workplace bullying. This systematic review analyzed workplace bullying among nurses based on a vast amount of empirical evidence published between 2004 and 2021. Workplace bullying is claimed to impact one-quarter of the nursing workforce, which is more than in other professions. The vast variety of



prevalence rates found across different assessments, ranging from 1 to 90%, might be attributed to sociocultural differences, workplace characteristics, research design, heterogeneity, and operationalization of terminology and assessment procedures. Bullying in the workplace should be viewed as entirely undesirable and unethical behavior. Bullying prevention policies must target organizational culture while also addressing the difficulty of building psychological safety in workplaces. Interventions supporting a new management and leadership framework, boosting democratic principles, and encouraging employee engagement in work choices should be adopted and assessed to provide better criteria for occupational health practice. Furthermore, future studies will be based on adding many more databases, such as the Web of Science and EBSCO, including a broad area of functions, such as organizational support, leadership, and absenteeism of nurses.

Ethical considerations

Not applicable.

Conflict of Interest

The authors declare no conflicts of interest.

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