

# Workplace bullying among doctors in residency training: a scoping review

Lady Farah Fatmawati<sup>1\*</sup>, Kemal Nazaruiddin Siregar<sup>1</sup>

## Abstract

**Purpose:** This study aims to determine the prevalence, risk factors, impacts, and response types to workplace bullying among resident doctors. **Methods:** The study was conducted using the scoping review method. An online search was performed across five databases, MEDLINE [PubMed], Cochrane Library, APA PsycArticles, Scopus, and Science Direct, using keyword developments from Medical Subheadings (MeSH). The selected articles were those published from 2013 to 2024. **Results:** A total of 1,402 articles that discussed workplace bullying were identified, and after screening based on inclusion and exclusion criteria, 19 articles were selected. The prevalence of workplace bullying ranged from 13% to 89% across various specialties. Additionally, a significant relationship was found between specialization type, residency year, age, gender, skin color, work shifts, organizational climate, and the mental condition of the resident doctors with the incidence of workplace bullying. Resident doctors who were victims of bullying were at risk of experiencing cognitive disorders, fatigue, job dissatisfaction, sleep difficulties, performance decline, weight changes, and even suicidal thoughts. Victims of bullying tended to respond to the behavior by sharing their experiences with family, friends, or close ones. **Conclusions:** Bullying among resident doctors shows a relatively high prevalence. Future research is expected to develop a confidential bullying reporting system as an initial mechanism for controlling workplace bullying.

**Keywords:** doctor resident; review; workplace bullying

## Submitted:

October 8th, 2024

## Accepted:

November 27th, 2024

## Published:

November 30th, 2024

<sup>1</sup>Department of Biostatistics,  
Faculty of Public Health,  
Universitas Indonesia, Jakarta,  
Indonesia

## \*Correspondence:

lady.farah31@ui.ac.id

## INTRODUCTION

Maintaining good mental health allows individuals to understand, express, and regulate their emotions, fulfill their social responsibilities, and handle challenging situations [1]. The WHO defines mental health as a state of mental well-being that enables individuals to cope with life's stresses, realize their

abilities, learn and work well, and contribute to their community. Almost 60% of the global population are workers. All workers have the same right to a safe and healthy environment. Decent work has a positive impact on mental health; however, on the other hand, a poor work environment, including discrimination, exclusion, violence, and bullying, can pose a risk to mental health in the workplace [2].

Bullying is a form of aggressive behavior where a person intentionally and repeatedly causes discomfort or harm to another person [3]. Workplace bullying has emerged as a source of health problems [4]. Bullying can cause psychosomatic effects, including emotional outbursts and anger, a tendency toward violence against others, and excessive weight gain or loss [5]. Bullying is indicated to have a negative interaction with job satisfaction and a significant correlation with the occurrence of generalized anxiety disorder and sleep difficulties [6]. Bullying among junior doctors also negatively impacts the organization, leading to job dissatisfaction and an increased risk of accidents [7].

Between 30-95% of junior doctors worldwide report experiencing workplace bullying [7]. One study in the United States found that 45% of emergency medicine residents experienced workplace bullying, and 2.5% of resident doctors had suicidal thoughts during their final academic year [8]. In Indonesia, specific measures for handling bullying are outlined in the Minister of Health's Instruction Number 1512 years 2023 about the Prevention and Management of Bullying Against Learners in Teaching Hospitals [9].

Bullying can take the form of physical contact, verbal actions, or more subtle behaviors [3]. The two most common forms of bullying are being repeatedly reminded of mistakes or being scolded, both of which can be categorized as verbal bullying [10]. Verbal bullying has been reported as the most common form of oppression in the workplace among healthcare workers, with 59.4% of the bullying being perpetrated by seniors [6]. Bullying incidents are rarely reported, as many fear the negative consequences of doing so [11]. In Egypt, 31.6% of resident doctors strongly agree that reporting bullying in the form of sexual harassment is dangerous [6]. As a result, such behavior can persist yearly as a legacy of oppression [12].

This study aims to determine the prevalence, risk factors, impacts, and response types to workplace bullying among doctors pursuing specialist training or resident doctors. This will serve as a consideration for evaluating policies on preventing and managing bullying among resident doctors. Additionally, this study can provide input for preventing and managing bullying among other healthcare workers. The research questions are: 'What is the prevalence of workplace bullying among resident doctors?', 'What factors are associated with the occurrence of workplace bullying among resident doctors?', 'What are the impacts and responses to workplace bullying among resident doctors?', and 'What forms of management or information systems control workplace bullying?'

## METHODS

This study uses the scoping review method with an approach developed by Arksey & O'Malley, which consists of five main steps: Identifying the research question, Identifying relevant studies, Study Selection, Charting the Data, and Reporting the Results [13]. Scoping reviews can identify the types of evidence available in a particular field, provide a more detailed description of findings and the scope of research, identify characteristics or factors related to the research concept, and identify research gaps [14]. This study needs a scoping review to identify and summarize the literature on the prevalence and factors related to workplace bullying. Additionally, this research can identify knowledge gaps for future research. The research protocol follows the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews (PRISMA-ScR) [15].

The article search was conducted online across five databases, which included MEDLINE [PubMed], Cochrane Library, APA PsycArticles, Scopus, and Science Direct. The search activity took place in August 2024 using the Boolean operators 'OR' and 'AND' with keywords including 'medical resident' OR 'junior doctor' AND bullying OR mobbing AND workplace OR hospital. The keywords and Boolean operators were formulated based on preliminary searches in PubMed and Cochrane Library through the Medical Subheadings (MeSH) menu and references from previous research articles.

The inclusion criteria for this study were determined based on the JBI guidelines for scoping reviews by the research objectives and questions, which encompass participants or populations, context, and content [16]. The inclusion criteria for this study are that the research population consists of junior doctors who are undergoing specialist education programs or resident doctors, it discusses workplace bullying among resident doctors, explains the prevalence and factors associated with bullying, employs quantitative or mixed-methods research, is published in English, and was published between 2013 and 2024. The exclusion criteria for this study are articles related to bullying that do not occur in the workplace or are not work-related, those that cannot be accessed for the full article, and those that are not research articles, such as book reviews.

The selected articles from the five databases were entered into the rayyan.ai application to identify any duplicate articles. Next, the articles were screened based on their titles and abstracts to assess their

relevance to the research theme. Articles that passed the screening were evaluated for eligibility based on the inclusion and exclusion criteria. The articles that underwent the eligibility assessment were subsequently reviewed and entered into a table containing authors, year of publication, study location, study design, study population, outcome measurements, and essential results. The selected articles were then analyzed narratively and presented in a table.

## RESULTS

### Characteristics of included studies

Figure 1 summarizes the article selection process, which began with 1,402 articles retrieved from five databases. These articles were screened through a three-stage process—title review, abstract review, and full-text evaluation—based on predefined inclusion and exclusion criteria. This rigorous screening resulted in 19 articles eligible for this review.

Table 1 presents the characteristics of these 19 studies, all of which employed a cross-sectional design. The research was conducted in diverse locations, including the United States, Canada, Iran, Malaysia, China, Saudi Arabia, Italy, Australia, Egypt, and Nigeria, with a combined sample of 36,543 resident doctors. All studies included both genders, and workplace bullying was predominantly measured using a Self-Administered Questionnaire.

### Prevalence of workplace bullying

The prevalence of workplace bullying ranges from 13% to 89%. The lowest prevalence of bullying comes from a study conducted in Malaysia, which reported 13%. In contrast, the highest prevalence comes from a study conducted in Iran, which reported 89% among residents in the emergency medicine specialty [17,18]. The most common perpetrators of bullying are seniors working in the same department and families of the patients [19,20,21,22].

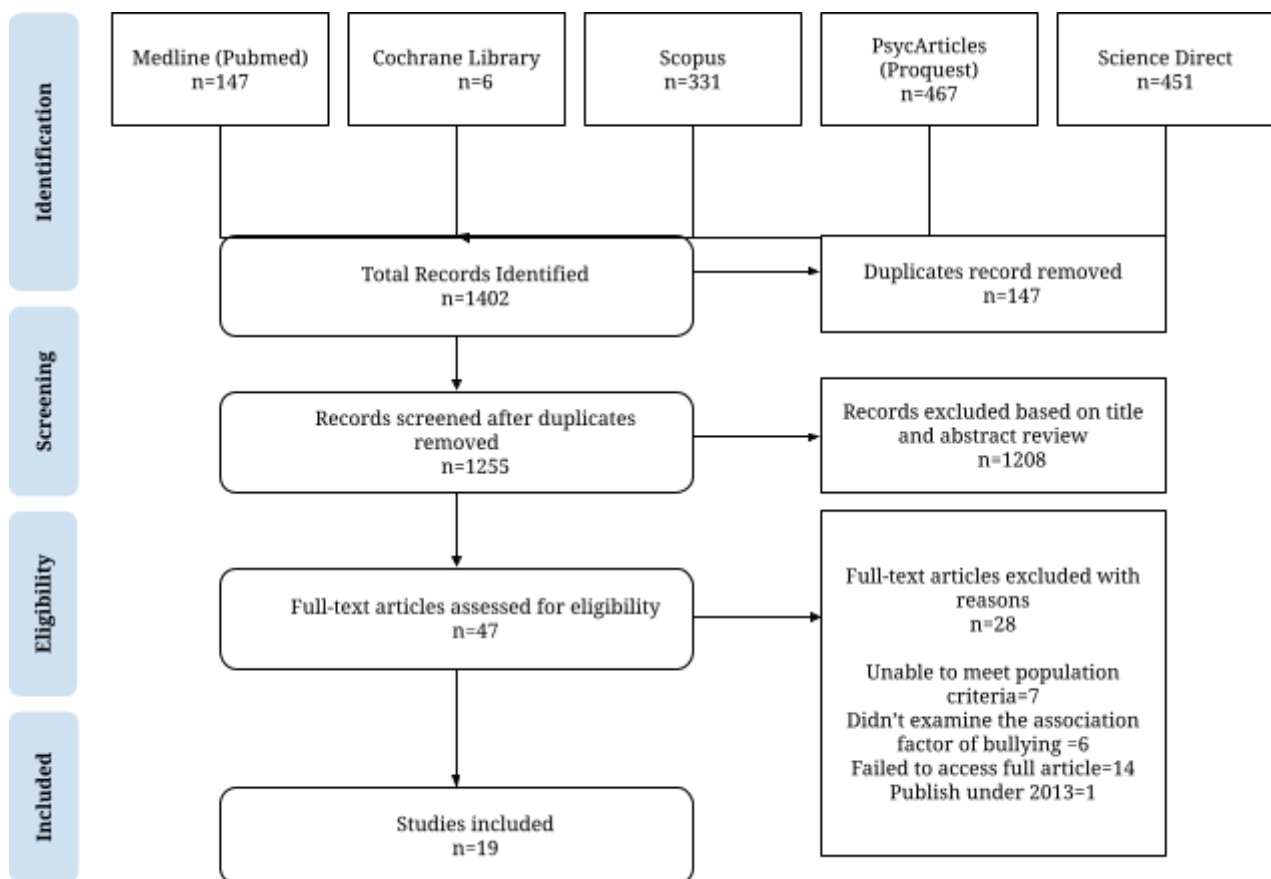


Figure 1. PRISMA flow diagram

**Table 1. Characteristics of included studies**

Study details [author, year, country]	Study design	Sample size	Mean age [years]	Females [%]	Specialties	Outcome measurement
Afolaranmi, et.al. [2022] Nigeria	Cross-sectional	124	32.3 ± 3.9	26.6	Various specialties	A paper-based semi-structured self-administered questionnaire.
Ayyala et.al. [2023] United States	Cross-sectional	21212	-	47	Internal Medicine	Internal Medicine In-Training Exam Survey
Chinichian, et.al. [2022] Iran	Cross-sectional	280	31.4	50.4	Various specialties (surgical and nonsurgical)	Questionnaires developed in 2003 by ILO, ICN, WHO, and PSI
El-Zoghby, et. Al [2022] Egypt	Cross-sectional	101	-	86.1	Various specialties	Questionnaires that consist of Psychosocial safety climate, Sexual harassment climate, Generalized anxiety disorder 7-item, and Pittsburgh Sleep Quality Index
Estrada, et al. [2023] Mexico	Cross-sectional	349	Median age 28	49.6	Various specialties	Leymann Inventory of Psychological Terror
Fang, et.al [2020] China	Cross-sectional	537	-	64.2	Residency Training physicians	Questionnaires compiled by the International Labor Organization (ILO), International Council of Nurses (ICN), WHO, and Public Services International (PSI) to measure violence in the workplace.
Fnais, et. al. [2013] Saudi Arabia	Cross-sectional	213	27.7 ± 2.13	41.8	Various specialties	The survey included questions about the prevalence of harassment of different types
Gutierrez, et.al [2018] Peru	Cross-sectional	1054	32.6 ± 5.4	42.3	Various specialties	Peruvian Medical Residents National Survey-2016 (Encuesta Nacional de Médicos Residentes-2016, ENMERE-2016) performed by the National Committee of Peruvian Medical Residency (Consejo Nacional de Residencia Médico, CONAREME)
Hostiuc, et.al. [2014] Italy	Cross-sectional	384	30.9 ± 4.6	73.7	Various specialties	Optional Questionnaire that consists of perceived and actual aggression
Kemper, et al. [2020] United States	Cross-sectional	1956	-	70	Pediatric	The Pediatric Resident Burnout and Resilience Study Consortium's 72-item online annual survey
Lall, et. al [2021] United States	Cross-sectional	7680	-	35.1	Emergency Medicine	A multiple-choice survey that consists of frequency of mistreatment, suicidal thoughts, and resident and program characteristic
Llewellyn, et al. [2019] New South Wales, Australia	Cross-sectional	374 [2015] 440 [2016]	Mostly: 25-27	60.2 [2015] 57 [2016]	Various specialties	New South Wales Junior Medical Officer Census related to bullying and sexual harassment
Orlino,et al. [2020] United States	Cross-sectional	132	-	31	Vascular surgery	Negative acts questionnaire e revised [NAQ-R]
Sadrabad,et. al. [2019] Iran	Cross-sectional	215	34 ± 5.5	21	Emergency Medicine	A survey that includes questions about residents' experiences of abuse and harassment during residency
Samsudin, et.al. [2020] Malaysia	Cross-sectional	1074	27 ± 1.5	65.4	Various specialties	Bullying: NAQ-R, Negative Affect: Affect Balance Scale Personality traits: Big Five Inventory, Self-esteem: Single Item Self Esteem Scale
Samsudin, et.al. [2020] Malaysia	Cross-sectional	1074	27 ± 1.5	65.4	Various specialties	NAQ-R
Samsudin, et.al. [2021] Malaysia	Cross-sectional	1074	27 ± 1.5	65.4	Various specialties	NAQ-R
Szafran,et. al. [2021] Canada	Cross-sectional [Mix methods]	307	Mostly: 35-44	61.2	Family medicine	Survey that addressed intimidation, harassment, and/or discrimination
Vargas, et.al [2022] Latin America	Cross-sectional	111	29.4± 2.4	22.5	Neurosurgery	A 33-question survey focused on mistreatment, discrimination, and burnout in residents with surgical training

The most common category of bullying is verbal bullying [18,21,23,24]. Other forms of bullying that occur among resident doctors include sexual harassment, physical abuse, academic abuse, and economic abuse [9,18,22,24,25]. In a study conducted in Iran, the prevalence of psychological violence and physical violence was higher in surgical specialties compared to medical specialties [22]. The types of bullying and the forms of negative behavior experienced by resident doctors are summarized in Table 2.

### **The associated factor**

There are several factors associated with the occurrence of workplace bullying, as explained in Table 2. Doctors in their first year of residency are two times more likely to experience bullying compared to those who have been in residency training for a longer time [26]. Resident doctors in surgical specialties are three times more likely to experience bullying than those in other specialties [26]. Emergency medicine residents are at a higher risk of being bullied by patients, while surgical residents are more likely to experience bullying from internal sources [27]. Doctors working the night shift are twice as likely to experience bullying [7,28]. Institutions with a negative organizational climate are at a higher risk for bullying incidents [29].

Female doctors are more at risk of experiencing bullying in the form of verbal violence and sexual harassment [9,21,24,26,30,31]. Male gender is more at risk of physical bullying [19,22,23]. Male doctors are at a higher risk of experiencing physical bullying. Additionally, younger resident doctors tend to be at greater risk of experiencing bullying [25]. Resident doctors from Eastern European medical schools are twice as likely to experience bullying compared to those from local schools. Non-white doctors are at a higher risk of being bullied [8]. Resident doctors with higher anxiety levels, a high degree of neuroticism, and a high degree of negative affect are also at a greater risk of experiencing bullying [26,32].

### **The outcome of bullying and response type**

Out of the selected studies, nine articles assessed the impacts related to bullying, as shown in Table 2. Victims of bullying are at twice the risk of experiencing burnout [30]. The occurrence of bullying is significantly related to stress levels, quality of life, anxiety scores, and sleep quality [7,21,30]. Bullying incidents trigger a decline in self-esteem and confidence [21]. Individuals who experience bullying are six times more likely to have suicidal thoughts [9].

About 85% of resident doctors who are victims of bullying are reluctant to report the incidents [28]. Residents who experience bullying mostly respond by discussing it with colleagues, family, and close friends [33]. Reporting bullying incidents is perceived as ineffective and continues to occur [25,33]. Most perpetrators of bullying do not receive any punishment, and those who report the incidents are treated as if they are to blame and threatened with expulsion [25].

### **Handling of bullying and information systems**

Working in institutions with a neutral organizational climate, a high degree of adhocracy culture, a high degree of managerial support, a high degree of interactional justice, and a high degree of distributive justice has a lower risk of workplace bullying [29]. In Australia, external and independent support programs have been established for medical students and trainees in several college programs and junior doctors through the support channels of New South Wales (NSW) Health Junior Medical Officer (JMO). One of the JMO programs includes a census related to bullying and sexual harassment [25]. In the U.S., there is also an annual survey concerning burnout experienced by Pediatric Residents. In Peru, a committee is responsible for regulations and quality standards for resident doctors (Consejo Nacional de Residentado Médico, CONAREME). The occurrence of bullying and violence in the workplace is specifically regulated by law in Egypt [7]. Other responses to bullying are summarized in Table 2.

None of the 19 reviewed research articles has discussed the information systems related to bullying management. Research conducted in Saudi Arabia recommends the establishment of a confidential follow-up information system, and research in Egypt suggests that healthcare facilities should have a system that allows victims of violence to voice their issues confidentially and without jeopardizing their careers. Research conducted in the United States recommends a system that can maximize reporting rates by increasing awareness of institutional professional oversight and Ombudsman programs [7,24,33].

## **DISCUSSION**

This study found the prevalence of workplace bullying is relatively high, ranging from 13% to 89%. Verbal bullying is the most frequent among neurosurgery, emergency medicine, and other specialty residents [7,9,18,20,21,23,28,31]. In addition to verbal bullying, resident doctors also face physical violence,

sexual violence, gender discrimination, economic abuse, academic abuse, and other forms of violence [7,9,17–25,27,28,30,31]. Female resident doctors tend to be at higher risk for verbal and sexual violence, while male doctors are more likely to experience physical violence [22,23,34]. According to the Indonesian Minister of Health's Instruction No. 1512 of 2023 on the Prevention and Handling of Bullying Against Learners in Teaching Hospitals within the Ministry of Health, sexual violence is considered a form of physical bullying. This study found that there are factors significantly associated with workplace bullying incidents. All articles in this research explain that there are triggers for individuals to become victims of bullying in their workplace. These factors are categorized into the resident doctors' work-related, demographic, and personal factors. Resident doctors who experience bullying are at risk of increased stress levels, heightened fatigue, elevated anxiety, depression, sleep difficulties, reduced quality of life, and even suicidal thoughts. This is consistent with the WHO's statement that bullying can impact an individual's mental health condition.[3]. This study also provides information that bullying can potentially decrease job satisfaction, reduce self-confidence, lower performance, and diminish personal achievement. These conditions can jeopardize the quality of healthcare services provided to patients. The bullying experienced leads resident doctors to seek consultations with psychiatrists, and some of them even consider quitting their residency and changing professions [13]. This can pose a barrier to fulfilling the need for specialist doctors, especially in Indonesia.

Several countries have established programs for preventing and managing bullying. In Peru, a committee responsible for regulations, quality, and standards in medical residency training is known as the CONAREME [27]. In New South Wales, Australia, and the US, there is also an annual census that discusses incidents of bullying, burn-out, and sexual harassment among doctors [25,30]. Similarly, in Egypt, there are regulations related to clear sanctions for workplace bullying [7]. Most studies state that handling bullying is considered ineffective [25,33]. Bullying continues to occur, and some resident doctors who report bullying end up facing unpleasant consequences. Only a small percentage of bullies receive sanctions for their violent actions. This shows that no serious steps have been taken to achieve zero bullying in the medical field. The study results indicate that the main perpetrators of bullying are colleagues frequently encountered by the victims, including senior doctors, managers, nurses, and fellow residents. The presence of hierarchy in the medical world is seen as a

legacy that has remained well-preserved over the years.

Healthcare facilities and universities must establish confidential reporting systems that protect whistleblowers so that reporting bullying does not become taboo [24]. A whistleblowing system can serve as a reporting platform to identify situations and conditions indicating violations or suspected misconduct, including bullying [35]. In addition to a reporting system, there is a need to develop a confidential follow-up system to ensure that applicable regulations appropriately address applicable regulations. In Indonesia, there is an instruction from the Minister of Health regarding the Prevention and Handling of Bullying in Teaching Hospitals[3]. The Ministry of Health also developed an online bullying reporting system. To support the optimal handling of bullying and avoid its consequences, all organizations must work together to take firm action against bullying. For example, in Peru, a committee is specifically responsible for overseeing the regulations and standards of resident doctor education, including bullying prevention through screening for bullying incidents[27].

## CONCLUSION

The prevalence of workplace bullying among resident doctors across various specialties in different countries is relatively high. Factors such as specialty, years of residency, age, gender, skin color, shift work, organizational climate, and the mental condition of resident doctors are associated with the occurrence of bullying. Workplace bullying can affect the physical, cognitive, and emotional well-being, as well as the performance, of resident doctors. It can even lead resident doctors to contemplate suicide. Workplace bullying is also linked to job satisfaction, achievement, and the performance of resident doctors, which can impact the quality of care provided by them.

Some countries have implemented initiatives to prevent and address bullying, but these measures are considered ineffective, as bullying continues and doctors who report it often face negative actions from the perpetrators. Further research is needed to evaluate interventions for the prevention and control of bullying and to identify the factors that can enhance the success of these interventions. Studies on information systems that can improve the reporting and handling of bullying are also necessary. In the future, policies aimed at creating a zero-bullying environment among resident doctors are expected to be developed so that the fulfillment of specialist doctor

**Table 2. Prevalence, associated factor, outcome, and other findings**

Author, year, country	Prevalence (%)	Type of bullying	Associated factor	Related outcome and responds type	Most perpetrators	Handling/recommendation
Afolaranmi, et.al., 2022, Nigeria [20]	59.70	Verbal 85% Social Isolation 27%	Witnessing a colleague being bullied are more likely to have experienced bullying	Did not examine	Superior to subordinate	Build education related to bullying prevention as an integral part of specialty training
Ayyala et.al., 2023, United States [23]	13,6	Verbal 80% Physical 5% Sexual 4%	Women are 1.4 times more likely to experience verbal and sexual bullying. Males are more likely to get physical bullying. Men are more likely to have physical bullying	Decline performance, left program. Men are more likely to use alcohol or drugs. Females are twice times more likely to get burnout, 1.3 times more likely to have depression and change in weight	Not mention	Involving ACGME to handle bullying, increased awareness, and a culture change in training programs "zero-tolerance" policies for bullying
Chinichian, et.al., 2022, Iran [22]	57.90	Psychological 50% Physically 16.7%	Surgical residents are more likely to be bullied. Men are more likely to have physical bullying	Did not examine	42% of residents, 90% worked in the same department as the victims, and 86% were mostly seniors	Holding workshops on stress control for residents and training to prevent violence at work
El-Zoghby, et.al., 2022, Egypt [6]	-	Everyday bullying: Verbal 26,7% Physical 1% Sexual 4% Academic 13%	Working both morning and night shifts, working 12 hours a day, and having surgical specialty are more likely to be bullied	Anxiety and having trouble in sleeping	Higher staff member, Patient's relative, senior resident, patient, nurse	Egyptian law about the punishment of sexual harassment and Workplace violence
Estrada, et al., 2023, Mexico [26]	39	-	Surgical residents are three times more likely to be bullied while second-year residents are three times more likely to be bullied	Reduced mental component scores on the Short Form -36 quality-of-life scale, having higher anxiety level.	39% senior, 21% heads of medical staff, 11% other medical staff	Identification of occupational conditions and adverse psychological stressors
Fang, et.al., 2020, China [28]	-	Verbal 22.7% Sexual abuse 6.9% Sexual abuse 4.1% Threat 10.2%	Residents who have shift work are more likely twice times more likely to be bullied, and 1st years of work experience are more likely twice times more likely to be bullied	Changing place of study/work and receiving psychological counseling. Responds type: 85% not report, 70% no punishment, 11% orally warned	Patients and their families, supervisors, colleagues, or staff	Monitoring their anxiety levels and health with risk factors and taking effective measures in advance, build teamwork awareness, and zero tolerance for bullying
Fnais, et. al., 2013, Saudi Arabia [24]	83.60	Verbal 61.5% Academic abuse 28,6%, Sexual 19.3%, Physical 9,9%	Women are more likely to have experienced verbal, academic, and sexual harassment.	Sought professional assistance (psychiatric)and pursue another career	Consultants, patients/families, nurse	a proactive approach to handling bullying, major changes at any level, a confidential feedback system, and punishment for perpetrators
Gutierrez, et.al., 2018, Peru [27]	73.4	-	First-year residents are more likely to be bullied, and surgical residents more likely to have worker-to-worker violence	Did not examine	46% Attending physician, 34% patients/relatives, 25% senior resident	CONAREME is an institution that regulates residency training in medical schools and quality standards for medical residency. Created ad hoc committees with the participation of residents' representatives

Author, year, country	Prevalence (%)	Type of bullying	Associated factor	Related outcome and responds type	Most perpetrators	Handling/recommendation
Hostiuc, et al., 2014, Italy [19]	45.80	Physical, psychological, sexual harassment, economic abuse	First-year residents are more likely to be bullied, while men are more likely to have physical bullying	Did not examine	43.4% Family of the patients, most occurred within the emergency room	Education and training; mandatory reporting of events; develop zero-tolerance policy; and continuous review of procedures for dealing with a violent
Kemper, et al., 2020, United States [30]	19	Sexual Harassment is 5% and other type of bullying	Women are more likely to be bullied	Residents who have been bullied, are twice times more likely to have burnout and have the opportunity to have higher stress levels and lower quality of life	Clinical staff (nursing, therapy), family members of patients, and faculty	Create a healthy learning environment and evaluate bullying-handling efforts
Lall, et al., 2021, United States [8]	45	Verbal 29% Sexual 14.7% Physical abuse 4,5% Racial discrimination 18%	Women are more likely to have any exposure to bullying, while Not-White residents are more likely to experience verbal abuse	Residents who have been bullied are 6 times more likely to have suicidal thoughts	Patients or patients family members, attending physicians, nurses, and staff	Identifying and promoting best practices to minimize workplace mistreatment
Llewellyn, et al., 2019 New South Wales, Australia [25]	2015: 54.3 2016: 57.5	Sexual harassment 16-19% and other type of bullying	Women and residents who have aged younger are more likely to be bullied. Women are also more likely to have sexual abuse	Responds type: 60% take an action (peer sharing, escalation, direct talk). Most reported ineffective or personally harmful outcomes, being dismissed or blamed, and an intention not to trust the process in the future	Senior, non-medical staff (nursing), and manager	College programs and for junior doctors through the NSW Health JMO support line.
Orlino, et al., 2020, United States [33]	32	-	Gender, medical school education, Level of training, and Geographic location have no relation to bullying	Responds type: 64% take an action (peer sharing, discussing with family & personal network) but the behavior had continued	Direct superior surgeon, co-residents, and patients	Build collaborative environments, increase awareness of institutional professional oversight and Ombudsperson programs, and Increase recognition of what is considered bullying and the effects
Sadrabad, et al., 2019, Iran [18]	89	verbal 67%, physical 10%, sexual 31%, verbal and physical threat 43%	Junior residents are more likely to have bullying	Did not examine	Patients/families, attending emergency medicine, attending other majors	Educate and assist the resident in resolving and dealing with any type of mistreatment
Samsudin, et al., 2020, Malaysia [32]	13	work below competence level, remove or replace the responsibility area with more trivial or unpleasant tasks, and verbal violence.	high-level neuroticism residents are three times more likely to experience bullying, residents with a high degree of negative affect are fourteen times more likely to be bullied	Did not examine	59% medical officers, 31% nurses and support, and 27% staff consultants and specialists	Did not mention



Author, year, country	Prevalence (%)	Type of bullying	Associated factor	Related outcome and responds type	Most perpetrators	Handling/recommendation
Samsudin, et.al., 2020, Malaysia [29]	13		Organizations that have a negative organizational climate will experience bullying more often	Did not examine		Working in departments with a higher degree of clan culture, a higher degree of adhocracy culture, a higher degree of organizational support, a moderate degree of achievement-oriented leadership style, and a higher degree of interactional and distributive justice can reduce the risk of workplace bullying
Samsudin, et.al., 2021, Malaysia [17]	13		Residents who graduated from Eastern European medical schools are twice times more likely to be bullied. Worked in surgical-based rotation are twice times more likely to experience bullying compared to residents who work in medical-based rotation	Did not examine		Did not mention
Szafran, et. al., 2021, Canada [21]	44.7	Verbal 86,8% Work as punishment 16.2% Recrimination for reporting 11,8%	Women are more likely to be bullied		76% Specialist physicians 48% hospital nurses and 34% family physicians	did not mention
Vargas, et.al., 2022, Latin America [31]	-	Mexico & Other Latin America Country: Verbal: 32.5% & 59.2% Physical abuse 5% Sexual abuse 10% & 3%	Women are more likely to be bullied		Co-residents, patients and their families, managers or bosses, direct teachers, nursing staff	did not mention

needs and the quality of healthcare services can grow positively. Some countries have implemented initiatives to prevent and address bullying. Still, these measures are considered ineffective, as bullying continues and doctors who report it often face negative actions from the perpetrators. Further research is needed to evaluate interventions for the prevention and control of bullying and to identify the factors that can enhance the success of these interventions. Studies on information systems that can improve the reporting and handling of bullying are also necessary. In the future, policies aimed at creating a zero-bullying environment among resident doctors are expected to be developed to fulfill specialist doctor needs and the quality of healthcare services can grow positively.

## REFERENCES

- Galderisi S, Heinz A, Kastrup M, Beezhold J, Sartorius N. Toward a new definition of mental health. *World Psychiatry*. 2015;14(2):231–3
- WHO. World Mental health Report: Transforming Mental Health For All. 2022. Available from: [Website]
- American Psychological Association. Bullying [Internet]. [cited 2024 Sep 20]. Available from: [Website]
- Farley S, Coyne I, Sprigg C, Axtell C, Subramanian G. Exploring the impact of workplace cyberbullying on trainee doctors. *Medical Education*. 2015;49(4):436–43
- Aykut G, Mercanoglu Efe E, Bayraktar S, Senturk S, Basegmez I, Ozkumit O, et al. Mobbing Exposure of Anaesthesiology Residents in Turkey. *Turkish Journal of Anesthesia and Reanimation*. 2016;44(4):177–89.
- El-Zoghby SM, Ibrahim ME, Zaghoul NM, Shehata SA, Farghaly RM. Impact of workplace violence on anxiety and sleep disturbances among Egyptian medical residents: a cross-sectional study. *Human Resources for Health*. 2022 ;20(1):84.
- Samsudin EZ, Isahak M, Rampal S. The prevalence, risk factors and outcomes of workplace bullying among junior doctors: a systematic review. *European Journal of Work and Organizational Psychology*. 2018;1–19.
- Lall MD, Bilimoria KY, Lu DW, Zhan T, Barton MA, Hu YY, et al. Prevalence of Discrimination, Abuse, and Harassment in Emergency Medicine Residency Training in the US. *JAMA Network Open*. 2021;4(8):e2121706.
- Ministry of Health of the Republic of Indonesia Ministry of Kementeriaan Kesehatan. Minister of Health Instruction Number 1512 of 2023 on the Prevention and Handling of Bullying Against Students in Teaching Hospitals within the Ministry of Health. 2023. Available from: [Website]
- Bahji A, Altomare J. Prevalence of intimidation, harassment, and discrimination in resident physicians: a systematic review and meta-analysis. *Canadian Medical Education Journal*. 2019
- Leisy HB, Ahmad M. Altering workplace attitudes for resident education (A.W.A.R.E.): discovering solutions for medical resident bullying through literature review. *BMC Medical Education*. 2016;16(1):127.
- Al-Shafae M, Al-Kaabi Y, Al-Farsi Y, White G, Al-Maniri A, Al-Sinawi H, et al. Pilot study on the prevalence of abuse and mistreatment during clinical internship: a cross-sectional study among first-year residents in Oman. *BMJ Open* [Internet]. 2013;3(2):e002076.
- Arksey H, O'Malley L. Scoping studies: towards a methodological framework. *International Journal of Social Research Methodology*. 2005 Feb;8(1):19–32.
- Munn Z, Peters MDJ, Stern C, Tufanaru C, McArthur A, Aromataris E. Systematic review or scoping review? Guidance for authors when choosing between a systematic or scoping review approach. *BMC Medical Research Methodology*. 2018;18(1):143.
- Tricco AC, Lillie E, Zarin W, O'Brien KK, Colquhoun H, Levac D, et al. PRISMA Extension for Scoping Reviews (PRISMA-ScR): Checklist and Explanation. *Annals of Internal Medicine* [Internet]. 2018;169(7):467–73.
- Westphal KK, Regoeczi W, Masotya M, Vazquez-Westphal B, Lounsbury K, McDavid L, et al. From Arksey and O'Malley and Beyond: Customizations to enhance a team-based, mixed approach to scoping review methodology. *MethodsX*. 2021;8:101375.
- Samsudin EZ, Isahak M, Rampal S, Ismail R, Zakaria MI. Workplace Bullying Among Junior Doctors in Malaysia: A Multicentre Cross-Sectional Study. *Malaysian Journal of Medical Sciences*. 2021 Apr 21;28(2):142–56.
- Sadrabad AZ, Bidarizerehpooosh F, Farahmand Rad R, Kariman H, Hatamabadi H, Alimohammadi H. Residents' Experiences of Abuse and Harassment in Emergency Departments. *Journal of Interpersonal Violence*. 2019;34(3):642–52.
- Hostiuc S, Dermengiu D, Hostiuc M. Violence against physicians in training. A Romanian perspective. *Journal of Forensic and Legal Medicine*. 2014 Oct;27:55–61.

20. Afolaranmi TO, Hassan ZI, Gokir BM, Kilani A, Igboke R, Ugwu KG, et al. Workplace Bullying and Its Associated Factors Among Medical Doctors in Residency Training in a Tertiary Health Institution in Plateau State Nigeria. *Front Public Health*. 2022 ;9:812979.
21. Szafran O, Woloschuk W, Torti JMI, Palacios Mackay MF. Intimidation, harassment, and discrimination during family medicine residency training: a mixed methods study. *BMC Medical Education*. 2021;21(1):173.
22. Chinichian M, Aghabiklooei A, Mehrdad R, Pouryaghoub G, Center for Research on Occupational Diseases, Tehran University of Medical Sciences, Tehran, Iran., Orouji M, et al. Violence Against Medical Assistants by Colleagues at Educational Hospitals and Its Effects on the Quality of Education. *International Journal of Medical Toxicology & Forensic Medicine*. 2022;12(3):37001.
23. Ayyala MS, Rios R, Wright SM. Gender differences in bullying among internal medicine residents. *Postgraduate Medical Journal*. 2023;99(1167):11–6.
24. Fnais N, al-Nasser M, Zamakhshary M, Abuznadah W, Al-Dhukair S, Saadeh M, et al. Prevalence of harassment and discrimination among residents in three training hospitals in Saudi Arabia. *Annals of Saudi Medicine*. 2013;33(2):134–9.
25. Llewellyn A, Karageorge A, Nash L, Li W, Neuen D. Bullying and sexual harassment of junior doctors in New South Wales, Australia: rate and reporting outcomes. *Australian Health Review*. 2019;43(3):328.
26. Enriquez Estrada VM, Antonio-Villa NE, Bello-Chavolla OY, Cuevas-García CF, Vargas Gutiérrez PL, Noriega ISYC, et al. Assessment of psychological terror and its impact on mental health and quality of life in medical residents at a reference medical center in Mexico: A cross-sectional study. Talavera-Velasco B, editor. *PLoS ONE*. 2023;18(12):e0295138.
27. Nieto-Gutierrez W, Toro-Huamanchumo CJ, Taype-Rondan A, Timaná-Ruiz R, Alva Diaz C, Jumpa-Armas D, et al. Workplace violence by specialty among Peruvian medical residents. Hutchinson G, editor. *PLoS ONE*. 2018;13(11):e0207769.
28. Fang H, Wei L, Mao J, Jia H, Li P, Li Y, et al. Extent and risk factors of psychological violence towards physicians and Standardised Residency Training physicians: a Northern China experience. *Health and Quality of Life Outcomes*. 2020;18(1):330.
29. Samsudin EZ, Isahak M, Rampal S, Rosnah I, Zakaria MI. Organisational antecedents of workplace victimisation: The role of organisational climate, culture, leadership, support, and justice in predicting junior doctors' exposure to bullying at work. *The International Journal of Health Planning and Management*. 2020 Jan;35(1):346–67.
30. Kemper KJ, Schwartz A. Bullying, Discrimination, Sexual Harassment, and Physical Violence: Common and Associated With Burnout in Pediatric Residents. *Academic Pediatrics*. 2020 Sep;20(7):991–7.
31. Cerda-Vargas, Stienen M, Campero A, et.al. Burnout, Discrimination, Abuse, and Mistreatment in Latin America Neurosurgical. *World Neurosurgery*. 2022;158: e393-e415.
32. Samsudin EZ, Isahak M, Rampal S, Rosnah I, Zakaria MI. Individual antecedents of workplace victimization: The role of negative affect, personality, and self-esteem in junior doctors' exposure to bullying at work. *The International Journal of Health Planning and Management*. 2020;35(5):1065–82.
33. Orlino JP, Sura TA, Pei KY, Smeds MR. Bullying of vascular surgery trainees. *Journal of Vascular Surgery*. 2022;75(6):2065-2071.e3.
34. Villalobos NA, Gutiérrez H, Ruiz Hernandez FG, Elizondo Omaña GG, Vaquera Alfaro HA, Carranza Guzmán FJ. Prevalence and associated factors of bullying in medical residents: A systematic review and meta-analysis. *Journal of Occupational Health* . 2023;65(1):e12418
35. Nursalman M, Anggraeni R, Firdaus MZ. Application of Layered Architecture in Whistleblowing Information System for Supporting Good University Governance in Indonesia University of Education. In: 2018 *International Conference on Information Technology Systems and Innovation (ICITSI)*. Bandung - Padang, Indonesia: IEEE; 2018. p. 49–54.