

How widespread is bullying in university-affiliated hospitals in Isfahan? a cross-sectional study from Iran

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Abstract

Bullying behaviors may undermine ethical standards in clinical education. This study aimed to assess the prevalence of bullying behaviors in university-affiliated hospitals and to identify the characteristics of victims and perpetrators.

This cross-sectional study was conducted among undergraduate medical students during the autumn of 2022. Data were collected using a validated and reliable researcher-designed questionnaire that assessed demographic characteristics, experiences with different types of bullying, perceived perpetrators, inquiries about seeking support, and awareness of preventive policies.

Among the 297 participants (response rate: 72.4%; mean age: 24.50 ± 1.36 years; females: 65.3%; interns: 46.8%), 90.6% reported experiencing at least one form of bullying during clinical training. The most frequently reported types of bullying were psychological (81.1%), behavioral (80.5%), and verbal (61.3%). Internship and a self-declared history of psychological problems were associated with higher reports of bullying (P -value < 0.05). Residents (93.7%) and clinical faculty members (91.4%) were most commonly identified as perpetrators. These findings indicate that bullying in clinical education is a significant ethical issue that may undermine professional development and respectful clinical practice.

The results underscore the need for ethically grounded institutional interventions to prevent mistreatment and support the students at risk.

Keywords: Bullying; Harassment; Medical ethics; Medical student; Education.

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Introduction

Bullying is defined as aggressive behavior by a superior person that causes physical harm or emotional problems for the victim (1). Also, it may refer to unwanted negative actions that result from actual or perceived power imbalance and are repeated over time (2). Today, bullying is considered a comprehensive and multifaceted problem that affects the general health of children and adults (3). It has many mental, psychological, and social consequences, such as anger, distress, pressure, and suicide, as well as destructive repercussions for the community (4). Bullying may encompass a range of verbal, behavioral, psychological, physical, sexual, and cyber abuses perpetrated by superiors, peers, or clients, such as patients in medical settings (5,6). Physical bullying includes acts such as pushing or physical confrontation; sexual bullying refers to unwanted verbal or physical behaviors with sexual intent; cyberbullying involves repeated harm through electronic communication; verbal bullying includes insults, jokes, rumors, or unfair criticism; psychological bullying encompasses humiliation, educational threats, ignoring, or discrimination; and behavioral bullying refers to

excessive workload, extreme monitoring, pressure to perform illegal or unethical actions, or rejection of justified requests (5,7).

Medical education environments appear particularly vulnerable to bullying when compared with other academic or professional training settings, which can be attributed to high workload, intense performance pressure, and hierarchical organizational structures (8–11). Studies from diverse regions report that more than half of medical students experience some form of bullying during training, although prevalence estimates vary widely across contexts (11–14). These variations may reflect differences in cultural norms, institutional policies, reporting mechanisms, and measurement tools rather than true differences in the occurrence of bullying (15,16).

Studies show that exposure to bullying is associated with reduced satisfaction, impaired teamwork, decreased educational engagement, and increased stress and burnout among medical trainees (17–19). Also, the adverse effects of medical students' exposure to such behaviors may continue to trouble them for years after

graduation (17–19). From an ethical perspective, such experiences may also undermine professional identity formation, moral development, and attitudes toward respectful patient care (15,20). Beyond their impact on learners' well-being, bullying behaviors may have ethical implications for patient care, as they are associated with emotional exhaustion, reduced empathy, and impaired communication—factors that may compromise the quality and safety of clinical care (21,22).

Many factors can make health systems vulnerable to bullying. Among these factors, the high workload and stress in educational environments, as well as the strict hierarchical system, are notable. Hierarchy in medical schools has sometimes turned the relationship between teachers and students into an unbalanced state resembling that of superiors and subordinates. Moreover, it has created the presumption that says, "If you cannot make it, you are not tough enough to do medicine!" (23). Given the culture-dependent nature of ethical perceptions and the limited number of studies conducted in clinical educational settings in Iran (24–26), further context-specific investigation is warranted. By examining bullying as an ethical issue embedded within the hidden curriculum of

medical education, this study seeks to inform policymakers and educators about the need for ethically grounded interventions to promote respectful learning environments and protect both trainees and patients. Accordingly, the present study aims to evaluate the prevalence and types of bullying behaviors among medical students during clinical training in university-affiliated hospitals and to identify characteristics of victims and perpetrators.

Methods

This cross-sectional study was conducted in the autumn of 2022 after obtaining scientific and ethical approval.

The study setting encompassed all university-affiliated teaching hospitals and outpatient teaching clinics where undergraduate medical students completed their clinical training. All included hospitals and clinical environments were educational and served as official training sites for medical students.

Medical education in Iran lasts 7 years. The first 3.5 years (7 semesters) include basic courses such as physiology, anatomy, and immunology, held in classes and laboratories; the next 3.5 years (7 semesters) consist of clinical training held in hospitals and clinics. The final 1.5 years

(3 semesters) are dedicated to a medical internship. The target population of this study was undergraduate medical students in their last 3.5 years (7 semesters). The inclusion criteria were medical students in their last 3.5 years (7 semesters) and those who had completed all their courses at Isfahan University of Medical Sciences at the time of this study. The exclusion criterion was unwillingness to participate in the study.

A non-random quota sampling method was employed to recruit participants. Quota allocation was determined based on the number of enrolled medical students in each academic semester. The proportion of participants recruited from each semester reflected its relative size within the total population of clinical-phase medical students. Participants within each quota were recruited using convenience sampling until the required sample size was reached.

The total number of eligible medical students in the clinical phase was 924. Sample size was calculated using the Morgan table, assuming a 50% expected prevalence, a 95% confidence level, and a statistical power of 0.80. The minimum required sample size was estimated at 272 participants and was proportionally distributed across the seven academic semesters.

A total of 410 students were invited to participate, of whom 297 completed the questionnaire, yielding a response rate of 72.4%. Data were collected using a researcher-designed questionnaire developed through a systematic review of the literature on bullying and mistreatment in medical education and healthcare settings. Existing studies and validated instruments were reviewed to identify relevant domains and commonly reported forms of bullying in clinical learning environments. An initial pool of items was extracted and adapted to the cultural and educational context of Iranian medical training. The development of the questionnaire was guided by a conceptual framework defining bullying as repeated mistreatment involving a power imbalance and encompassing verbal, psychological, physical, sexual, behavioral, and cyber forms of bullying. At the beginning of the questionnaire, bullying was explicitly defined for participants, and each bullying domain was assessed using items that included concrete behavioral examples. For this study, bullying was operationally defined as repeated negative behaviors perceived by students as harmful or humiliating within the clinical learning environment.

Face validity of the questionnaire was assessed by 20 medical students from the target population. Content validity was evaluated both qualitatively and quantitatively. Quantitative content validity was assessed using the Content Validity Ratio (CVR) and Content Validity Index (CVI). Fourteen experts, including clinicians, medical ethicists, and statisticians, independently evaluated each item on the basis of necessity, relevance, and clarity. Based on Lawshe's method, CVR values ranged from 0.57 to 1, exceeding the minimum acceptable threshold for a panel of 14 experts. Item-level CVI values ranged from 0.85 to 1, indicating satisfactory to excellent content validity. All items met the predefined validity criteria and were retained in the final version of the questionnaire.

A pilot study was conducted with 30 participants to assess the clarity and comprehensibility of the items, and necessary modifications were made accordingly. Internal consistency reliability of the final questionnaire was confirmed using Cronbach's alpha coefficient (Cronbach's $\alpha = 0.90$).

The designed questionnaire consisted of four parts. The purpose of the study was explained in the first part, along with assurances of data confidentiality and anonymity. The second part

gathered demographic information, including semester, age, gender, marital status, place of residence, and history of psychological health problems, in 6 items. A history of psychological health problems was assessed through self-report, with participants responding based on their own experience and understanding, without clinical diagnosis or verification. The third part consisted of 16 items and explored the participants' experiences and emotions regarding different types of bullying. Participants were able to report experiences in more than one bullying category; therefore, reported percentages across bullying types were not mutually exclusive.

Questions were divided into six subgroups: 1) physical bullying, 2) sexual bullying, 3) cyberbullying, 4) verbal bullying (offense, joke, rumor, criticism), 5) psychological bullying (humiliation, educational threat, ignorance, discrimination), and 6) behavioral bullying (pressure and extra work, excessive monitoring and warning, pressure to perform illegal or unethical actions, rejection of justified requests). This part aimed to evaluate the experiences of bullied students and identify the perpetrators. Finally, the fourth part of the questionnaire consisted of 3 questions about seeking support after experiencing bullying, contacting relevant

authorities, and victims' awareness of potential preventive policies in the clinical environment.

The questionnaire was sent to the target community online via social media platforms, e-mail, and SMS during the study. After the study was conducted, the online link of the questionnaire was deactivated.

Data analysis

Finally, the data were entered into Excel and analyzed using IBM SPSS Statistics 22. Quantitative variables were reported as means and standard deviations, and qualitative variables as counts and percentages. Student-T and chi-square tests (if necessary, Fisher's exact tests) were used to compare the data, and binary

logistic regression was also applied. *P*-value < 0.05 was considered statistically significant.

Ethical consideration

The study approved by the institutional research and ethics committee of Isfahan University of Medical Sciences (Ethics code: IR.MUI.MED.REC.1401.300).

Results

In this study, we approached 410 undergraduate medical students at Isfahan University of Medical Sciences to complete our questionnaire. A total of 297 students participated (response rate: 72.4%). Among them, 194 (65.3%) were female, and 40 (13.5%) were married. The average age of the students was 24.50 ± 1.36 years, ranging from 22 to 30 years (Table 1).

Table 1(1): The status of different types of bullying by different socio-demographic variables and the relationship between them

		Total (n=297)	Bullied in at least one type			Psychological			Behavioral		
			Bullied (n=269)	Not bullied (n=28)	p-value	Bullied (n=241)	Not bullied (n=56)	p-value	Bullied (n=239)	Not bullied (n=58)	p-value
Age		24.50 ±1.36	24.60 ±1.35	23.57 ±1.00	<0.001	24.64± 1.32	23.89± 1.34	<0.001	24.62± 1.31	24.03± 1.46	0.003
Gender	Male	103 (34.7%)	91 (33.8%)	12 (42.9%)	0.339	79 (32.8%)	24 (42.9%)	0.154	83 (34.7%)	20 (34.5%)	0.972
	Female	194 (65.3%)	178 (66.2%)	16 (57.1%)		162 (67.2%)	32 (57.1%)		156 (65.3%)	38 (65.5%)	
Marital status	Married	40 (13.5%)	39 (14.5%)	1 (3.6%)	0.107	38 (15.8%)	2 (3.6%)	0.016	35 (14.6%)	5 (8.6%)	0.228
	Single	257 (86.5%)	230 (85.5%)	27 (96.4%)		203 (84.2%)	54 (96.4%)		204 (85.4%)	53 (91.4%)	
Grade	Pre-intern	158 (53.2%)	133 (49.4%)	25 (89.3%)	<0.001	113 (46.9%)	45 (80.4%)	<0.001	111 (46.4%)	47 (81.0%)	<0.001
	Intern	139 (46.8%)	136 (50.6%)	3 (10.7%)		128 (53.1%)	11 (19.6%)		128 (53.6%)	11 (19.0%)	
Native*		181 (60.9%)	161 (59.9%)	20 (71.4%)	0.232	144 (59.8%)	37 (66.1%)	0.383	136 (56.9%)	45 (77.6%)	0.004
History of psychological problems		100 (33.7%)	92 (34.2%)	8 (28.6%)	0.549	88 (36.5%)	12 (21.4%)	0.031	85 (35.6%)	15 (25.9%)	0.161

Table 1 (2): The status of different types of bullying by different socio-demographic variables and the relationship between them

		Verbal			Cyberbullying			Sexual			Physical		
		Bullied (n=182)	Not bullied (n=115)	p-value	Bullied (n=16)	Not bullied (n=281)	p-value	Bullied (n=5)	Not bullied (n=292)	p-value	Bullied (n=3)	Not bullied (n=294)	p-value
Age		24.63±1.27	24.30±1.46	0.046	24.56±1.41	24.50±1.36	0.854	24.80±0.84	24.50±1.36	0.515	26±2	24.49±1.34	0.137
Gender	Male	62 (34.1%)	41 (35.7%)	0.780	5 (31.3%)	98 (34.9%)	0.767	2 (40%)	101 (34.6%)	1	2 (66.7%)	101 (34.4%)	0.277

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	Female	120 (65.9%)	74 (64.3%)		11 (68.8%)	183 (65.1%)		3 (60%)	191 (65.4%)		1 (33.3%)	193 (65.6%)	
Marital status	Married	29 (15.9%)	11 (9.6%)	0.117	1 (6.3%)	39 (13.9%)	0.385	0	40 (13.7%)	1	2 (66.7%)	38 (12.9%)	0.049
	Single	153 (84.1%)	104 (90.4%)		15 (93.8%)	242 (86.1%)		5 (100%)	252 (86.3%)		1 (33.3%)	256 (87.1%)	
Grade	Pre-intern	84 (46.2%)	74 (64.3%)	0.002	10 (62.5%)	148 (52.7%)	0.443	1 (20%)	157 (53.8%)	0.189	2 (66.7%)	156 (53.1%)	1
	Intern	98 (53.8%)	41 (35.7%)		6 (37.5%)	133 (47.3%)		4 (80%)	135 (46.2%)		1 (33.3%)	138 (46.9%)	
Native*		109 (59.9%)	72 (62.6%)	0.640	10 (62.5%)	171 (60.9%)	0.896	3 (60%)	178 (61%)	1	1 (33.3%)	180 (61.2%)	0.563
History of psychological problems		70 (38.5%)	30 (26.1%)	0.028	9 (56.3%)	91 (32.4%)	0.049	3 (60%)	97 (33.2%)	0.339	1 (33.3%)	99 (33.7%)	1
* Native students were defined as students whose permanent residence was in Isfahan city, whereas non-native students were from other cities of Iran. Data is represented as mean±standard deviation or number (present). Chi-square, 2-sided fisher exact, independent sample T and Mann Whitney U tests were used.													

The number of participants who reported at least one type of bullying was 269 (90.6%). The most common types of bullying were psychological (n = 241, 81.1%), behavioral (n = 239, 80.5%), verbal (n = 182, 61.3%), cyberbullying (n = 16, 5.4%), sexual (n = 5, 1.7%), and physical (n = 3, 1%), in that order.

Medical interns had experienced all types of bullying more than other students, including psychological, behavioral, and verbal (50.6% vs. 10.7%, 53.1% vs. 19.6%, 53.6% vs. 19.0%, with P -value < 0.001 and 53.8% vs. 35.7% with P -value < 0.01, respectively).

Of the participants who had been psychologically bullied, 36.5% reported a history of

psychological problems, but this number was 21.4% for those who had not been psychologically bullied (P -value < 0.05). Besides, in cases of verbal and cyberbullying, 38.5% and 56.3% had a history of psychological problems, respectively, and in participants who did not report verbal and cyberbullying, percentages were 26.1% and 32.4%, respectively (P -value < 0.05). As for behavioral bullying, 56.9% of the bullied students were native, whereas 77.6% of those not bullied were native (P -value < 0.01) (Table 1).

Regression analysis of variables in different types of bullying showed that medical interns had higher odds of experiencing bullying with an OR

of 5.11 (CI95%: 1.25-20.95). Students in internship or those with a history of psychological problems had higher odds of experiencing psychological bullying, with an OR of 4.14 (CI95%: 1.70-10.06) and 2.61 (CI95%: 1.26-5.39), respectively. Incidence of behavioral bullying in interns and native students was as

high as OR=5.96 (CI95%: 2.54-13.97) and OR=0.30 (CI95%: 0.15-0.62), respectively. Moreover, internship and history of psychological problems independently related to verbal bullying with an OR of 2.25 (CI95%: 1.22-4.15) and an OR of 2.01 (CI95%: 1.18-3.42), respectively (Table 2).

Table 2. Multivariate analysis of different socio-demographic variables in various bullying types

	Experience of at Least One Form of Bullying	Psychological	Behavioral	Verbal	Cyberbullying
Age	1.42 (0.91-2.20)	1.12 (0.82-1.54)	0.98 (0.74-1.31)	0.99 (0.79-1.24)	1.23 (0.79-1.93)
Gender (Female)	1.46 (0.63-3.40)	1.45 (0.76-2.77)	1.02 (0.53-1.98)	1.02 (0.61-1.71)	1.18 (0.39-3.58)
Marital Status (Married)	2.83 (0.34-23.19)	4.32 (0.95-19.68)	1.87 (0.62-5.59)	1.83 (0.84-4.01)	0.42 (0.05-3.50)
Grade (Intern)	5.11 (1.25-20.95)	4.14 (1.70-10.06)	5.96 (2.54-13.97)	2.25 (1.22-4.15)	0.53 (0.15-1.88)
Native	0.45 (0.18-1.12)	0.62 (0.32-1.20)	0.30 (0.15-0.62)	0.83 (0.50-1.38)	1.20 (0.41-3.48)
History of Psychological Problems	1.42 (0.58-3.50)	2.61 (1.26-5.39)	1.83 (0.92-3.65)	2.01 (1.18-3.42)	2.49 (0.89-7.01)
Data is represented as odds ratio (95% confidence interval). Binary logistic regression was used.					

According to the participants who had experienced at least one type of bullying, residents (93.7%) and clinical faculty members (91.4%) were the most reported perpetrators. As regards the psychological, behavioral, and verbal bullying, residents and clinical faculty members

were reported in more than 75% of the cases. Meanwhile, in 80% and 66.7% of the sexual and physical bullying situations, patients and their companions were the perpetrators, respectively. (Table 3)

Table 3. Different perpetrators of bullying behaviors in each type

	Experience of at Least One Form of Bullying (n=269)	Psychological (n=241)	Behavioral (n=239)	Verbal (n=182)	Cyberbullying (n=16)	Sexual (n=5)	Physical (n=3)
Clinical Faculty Members	246 (91.4%)	217 (90.0%)	185 (77.4%)	137 (75.3%)	6 (37.5%)	1 (20%)	2 (66.7%)
Fellowship	156 (58.0%)	110 (45.6%)	114 (47.7%)	71 (39.0%)	3 (18.8%)	0	0
Resident	252 (93.7%)	214 (88.8%)	223 (93.3%)	145 (79.7%)	13 (81.3%)	2 (40%)	0
Higher Level Student	118 (43.9%)	71 (29.5%)	75 (31.4%)	53 (29.1%)	2 (12.5%)	2 (40%)	0
Fellow Student	104 (38.7%)	52 (21.6%)	33 (13.8%)	53 (29.1%)	3 (18.8%)	1 (20%)	0
Nurse	187 (69.5%)	137 (56.8%)	145 (60.7%)	90 (49.5%)	0	2 (40%)	0
Staff	124 (46.1%)	84 (34.9%)	76 (31.8%)	47 (25.8%)	1 (6.3%)	1 (20%)	0
Patient and Companions	145 (53.9%)	103 (42.7%)	49 (20.5%)	71 (39.0%)	1 (6.3%)	4 (80%)	2 (66.7%)

Among those participants who had experienced bullying, only 55% reported getting support, whereas 36.8% were not supported, and 8.2% did not raise the issue with others. Besides, only 19% of the bullied students had talked to the relevant official.

Regarding study participants' awareness of a specific policy to prevent bullying in their center, only 19 (6.4%) reported that such policies existed. On the other hand, 68 (22.9%) said they were unaware of such policies, and 210 (70.7%) stated that they did not exist.

Discussion

The present study explored bullying behaviors among medical students in university-affiliated hospitals in Isfahan, revealing that about 91% of the participants experienced at least one form of

bullying. The most prevalent types of bullying were psychological, behavioral, and verbal, with residents and clinical faculty members being the primary perpetrators. This finding aligns with broader literature indicating a high prevalence of bullying in medical education settings globally. Studies from various countries have documented significant bullying rates among medical students. For instance, a study by Frank et al., in 2003 in the United States reported that 85% of students experienced harassment or belittlement (12). In 2020, Elghazally and Atallah found that 71.1% of the medical students in their final years experienced bullying (27). Similarly, Ahmer et al., study in Pakistan reported a bullying prevalence of 52%, while this rate was 44% in Saudi Arabia, based on another study by

AlMulhim et al. (14,28). These studies collectively highlight the pervasive nature of bullying in medical education. Our study showed that 81.1% of the participants had experienced psychological bullying, which is remarkably higher than the 30-45% reported in studies from Saudi Arabia and Egypt (27,28). Behavioral bullying was reported by 80.5% of our participants, compared to 64% in Elghazally and Atallah's study (27), but verbal bullying affected 61.3% of our participants, which is lower than Elghazally and Atallah's 74% (27). Cyberbullying was relatively low at 5.4%, contrasting with higher rates reported in other contexts (29). Sexual bullying was minimal at 1.7%, similar to AlMulhim et al., findings, but much lower than Al-Hussain et al., report (11,28). Physical violence was rare, consistent with some international reports, but differing significantly from others (11,27). While the prevalence and types of bullying among medical students vary globally, they continue to remain a significant concern. Although prevalence estimates vary across studies, such differences are likely influenced by variations in cultural norms, institutional contexts, measurement tools, and reporting practices rather than reflecting direct comparability between countries.

Rather than being an isolated interpersonal behavior, bullying is increasingly recognized as a systemic and ethical problem that reflects underlying organizational and cultural norms (21). Ethical analyses of medical education suggest that hierarchical training structures and heavy clinical workloads may contribute to the normalization of mistreatment as part of professional socialization (23). This phenomenon has been described within the framework of the *hidden curriculum*, through which learners internalize implicit values and behaviors that may conflict with formally taught ethical principles (3,5). Repeated exposure to bullying during formative clinical years contributes to a harmful hidden curriculum, through which students may adopt implicit attitudes and practices that normalize disrespect, abuse of power, and hierarchical domination. From an ethical perspective, such experiences may undermine professional identity formation by eroding core moral values, including respect, justice, accountability, and empathy—values that are central to ethical medical practice (3,5). Such power dynamics can discourage reporting, reinforce silence, and legitimize mistreatment, thereby threatening core ethical values of medical professionalism, including respect,

justice, and moral responsibility. This normalization may contribute to moral distress and reduced ethical sensitivity among learners, reinforcing silence and acceptance rather than critical reflection and moral courage. Moreover, such hierarchical dynamics can transmit problematic norms across generations of clinicians through role modeling, thereby sustaining unethical behaviors within clinical education (15,16,20).

Generally speaking, we believe that the differences in the prevalence of bullying behaviors can be attributed to individuals' varying levels of sensitivity and resilience when faced with such behaviors in different countries and contexts. Additionally, it should be noted that these studies have been conducted in different countries with different cultures. Since ethical values are entirely culture-dependent, a specific behavior may be considered bullying in one study and a normal behavior in another. Previous studies have identified multiple factors that affect bullying behaviors, including individual characteristics, environmental factors, culture, and social norms (30). As our results support, native students tend to report fewer bullying behaviors.

In the present study, we found that students with a history of psychological problems were more prone to psychological, verbal, and cyberbullying. Two studies reported that the experience of bullying is correlated with mental health problems like depression and anxiety (27,28). Frank et al.'s study was similar in this regard, reporting a higher prevalence of bullying among students who had previously expressed depression (12). It seems that individuals with a history of psychological problems are more sensitive about behaviors and may report bullying more often. On the other hand, it is possible that perpetrators mistreat these students more than others. However, given the cross-sectional design of this study, no causal inference regarding the direction of this relationship can be made. From an ethical standpoint, this finding raises concerns related to justice and nonmaleficence, as educational systems may be insufficiently protecting those who are most vulnerable (20,21). Bullying can be conceptualized as a dyadic interaction between individuals, where situational factors may serve as predisposing elements. However, this dynamic is often influenced by a combination of individual factors, such as neuroticism and conflict management style, as well as

organizational factors, including prevailing leadership styles. While it is generally acknowledged that organizations and their management bear responsibility for addressing interpersonal conflicts and bullying, these phenomena can arise from a diverse array of factors operating at both individual and organizational levels (31).

Some studies have suggested that there may be a relationship between bullying and gender. Mukhtar et al. reported that 70% of the bullied medical students in a private medical college in Lahore in 2010 were female (32). A systematic review about academic bullying also claimed that women were the most common victims (33). On the other hand, Elghazally and Atallah reported that men were more likely to experience bullying (27). Similarly, Ahmer et al. stated that men were the primary victims of bullying (14). However, our study did not show a significant gender difference between students who were bullied compared to those who were not, similar to Frank et al.'s report (12).

This study revealed that medical interns faced more bullying behaviors compared to junior students. Although we asked participants about their experiences with bullying behavior during their clinical education period, this finding may

be attributed to students' increased responsibility during their internship. Interestingly, Frank's study showed a growing trend of belittlement and harassment among senior medical students compared to first-year clinical students (12). Besides, Al-Hussain et al.'s research indicates that the frequency of mistreatment increases with each year of study, rising from 56% in the second year to 77% in the third year (11). In other words, the more involved students become in the clinical education system and patient care, the more likely they are to experience bullying behaviors. While increased clinical responsibility may contribute to this finding, longer exposure to clinical environments may also partially explain the higher reported prevalence among interns.

The power-conflict theory emphasizes the central role of power dynamics in shaping social interactions and conflicts. The theory posits that individuals and groups compete for power—the ability to influence others and control resources—within a context of resource scarcity, which drives inequality and perpetuates structural imbalances. Social structures are viewed as mechanisms that maintain the dominance of certain groups, often through institutions designed to protect their privileged positions. Unlike functionalist perspectives that

prioritize stability, the power-conflict theory asserts that social change is driven by conflict, as competing groups challenge existing power hierarchies to redistribute resources and influence. This framework has significant implications for addressing systemic inequalities, informing conflict resolution strategies, and guiding policy development to promote social equity (34).

Our analysis indicated that residents and clinical faculty members were the primary perpetrators for most of the bullying types. In contrast, the most common perpetrators of sexual and physical bullying were patients and their companions. Frank et al. similarly found that senior residents and clinical faculty members were the most common perpetrators of belittlement against medical students (12). This underscores the ethical significance of role modeling within the hidden curriculum, as behaviors exhibited by senior clinicians implicitly define professional conduct (16,18). We believe that the greater responsibilities of residents in patient care, alongside of their education and training, expose them to a high level of stress and anxiety. On the other hand, the rigid hierarchical model in the medical education system and the lack of sufficient supervision over

the performance of residents and clinical faculty members in interacting with medical students can lead to various forms of bullying behavior. The medical training system in Iran exemplifies a high power distance culture, as described by Hofstede's cultural dimensions theory. This is characterized by a centralized decision-making structure, where authority is concentrated at the top with limited input from subordinates, and a hierarchical framework that discourages questioning of authority. Consequently, students have limited resources and opportunities for feedback (22,35).

According to the current study, fewer than 10% of participants reported that their hospital had specific policies regarding bullying. Similar results have been reported in a study by Ahmer et al., who asked medical students from six medical colleges in Pakistan whether their college had a policy on bullying and harassment, and 88% responded negatively (14). Additionally, Gianakos et al. reported that 71% of the victims did not report bullying behaviors to their institution, with about half of the individuals citing fear of retaliation as the reason, since 56% of those who had reported their experiences received negative feedback afterward (18). In the present study, about half of

the individuals who experienced bullying were not supported, a finding similar to that of Ahmer et al.'s study (14). In general, it should be noted that despite the relatively high prevalence of bullying behaviors in medical education centers and the serious concerns of students in this regard, many individuals who have experienced such behaviors are unaware of the existence of a supportive structure or explicit policy in these centers. This gap reflects what has been described as symbolic policy-making, in which formal policies exist without effective implementation or cultural change. It is essential to clarify the importance of this ethical issue to policymakers and planners in medical education. Moreover, those authorities should take more practical steps toward effective policy-making or clarification to prevent bullying behaviors and support individuals exposed to them.

Researchers have proposed various strategies to reduce bullying in medical schools. Among these are providing preventive training, strengthening monitoring systems, developing appropriate policies, providing organizational support for victims, and suggesting solutions tailored to the educational context. Programs proposed to implement these strategies include conducting training workshops to recognize bullying,

forming an anti-bullying behavior committee to facilitate employee and student reporting, and tracking and addressing these behaviors at the organizational level. Furthermore, a professional commitment office should be formed to evaluate the performance of employees and learners (33,36). The concept of institutional performativity highlights a significant gap between policy formulation and implementation, where policies often exist only symbolically and lack effective implementation. This issue is exemplified by a serious lack of awareness regarding existing policies, underscoring the symbolic nature of policy-making without tangible outcomes. Institutional performance, encompassing the quality of public service provision, is crucial for assessing how well institutions implement policies. It involves evaluating responsiveness and efficiency, often measured through public opinion surveys and objective indicators like government effectiveness and regulatory quality. Addressing the implementation gap requires understanding the organizational and institutional arrangements that shape policy implementation, including bureaucratic performance and contextual specificity. By focusing on these aspects, institutions can enhance their performance and

ensure that policies are not merely symbolic but effectively implemented to achieve their intended objectives (37).

To our knowledge, this is the first study to evaluate different types of bullying behaviors in university-affiliated hospitals in Iran using a valid and reliable researcher-developed questionnaire. The research also focused on participants' experiences of perpetrators regarding each type of bullying. However, this study has several limitations that should be considered. For instance, we were unable to follow up with the students and only asked them about their prior experiences, which may have contributed to recall bias. Another limitation is that the non-random sampling method used in this study may interfere with external validity. For further research, we recommend an investigation aimed at clarifying the causes of bullying, which may help design interventions to prevent bullying behaviors, develop effective strategies to mitigate the consequences, and improve the educational environment in clinical settings. Future research should focus on longitudinal designs and intervention-based studies to better understand causal pathways and develop ethically grounded strategies in order to improve clinical learning environments.

Conclusion

This study demonstrates that bullying is highly prevalent among medical students during their clinical training, with more than 90% of the participants reporting exposure to at least one form of mistreatment. Interns and students with a history of psychological problems were at higher risk, and residents and clinical faculty members were identified as the most common perpetrators. In addition, most participants reported limited awareness of institutional policies aimed at preventing bullying. Taken together, these findings indicate that bullying in clinical education represents not only an educational shortcoming but also a significant ethical concern within medical training systems.

On the other hand, persistent exposure to mistreatment contributes to a harmful hidden curriculum that may undermine professional identity formation, normalize power misuse, and erode core ethical values such as respect, justice, and empathy. Such learning environments are ethically problematic because they conflict with medical institutions' responsibility to protect learners' dignity and promote ethically grounded patient care. Although causal relationships cannot be inferred from this cross-sectional

study, the observed patterns underscore the ethical responsibility of medical schools and teaching hospitals to proactively address bullying.

Accordingly, this study highlights the need for ethically informed interventions in clinical training environments. First, integrating ethics- and professionalism-based training into clinical education may help raise awareness of bullying behaviors and reinforce respectful professional conduct. Second, strengthening institutional accountability through confidential reporting mechanisms and protection from retaliation may encourage disclosure and early intervention. Third, promoting positive role modeling by senior clinicians may help disrupt the normalization of mistreatment within hierarchical training structures.

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Ethical Considerations

The ethics committee of Isfahan University of Medical Sciences has approved this study under the code number IR.MUI.MED.REC.1401.300. Written informed consent was obtained from all participants.

Data Availability

The datasets generated during the current study are not publicly available but are available from the corresponding author on reasonable request.

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Competing Interests

The authors have no competing interests to declare that are relevant to the content of this article.

References

1. National Center for Biotechnology Information. Bethesda: MeSH.2011 [cited 2015 Sep 7].; Available from: <http://goo.gl/i45MQh>. Mesh.
2. Gredler GR. Olweus, D. (1993). *Bullying at school: What we know and what we can do*. Malden, MA: Blackwell Publishing, 140 pp., \$25.00. *Psychol Sch* [Internet]. 2003;40(6):699–700. Available from: <https://onlinelibrary.wiley.com/doi/abs/10.1002/pits.10114>
3. Rettew DC, Pawlowski S. Bullying: An Update. *Child Adolesc Psychiatr Clin N Am*. 2022 Jan;31(1):1–9.
4. Field T. Bullying in medicine. Those who can, do; those who can't, bully. Vol. 324, *BMJ (Clinical research ed.)*. England; 2002. p. 786.
5. Chávez-Rivera A, Ramos-Lira LL, Abreu-Hernández F. A systematic review of mistreatment in medical students. *Gac Med Mex*. 2016;152(6):796–811.
6. Norton P, Costa V, Teixeira J, Azevedo A, Roma-Torres A, Amaro J, et al. Prevalence and Determinants of Bullying among Health Care Workers in Portugal. *Work Heal Saf*. 2017;65(5):188–96.
7. Hinduja S, Patchin JW. *Bullying Beyond the Schoolyard: Preventing and Responding to Cyberbullying*. Second. Corwin; 2014. 312 p.
8. Health Policy and Economic Research Unit. British Medical Association. 2006. Bullying and harassment of doctors in the workplace. Available from: www.bma.org.uk/ap.nsf/Content/bullying2006
9. Bully OnLine (UK National Workplace Bullying Advice Line). Bullying: surveys, facts, figures and costs [Internet]. Available from: www.bullyonline.org/workbully/costs.html
10. Rautio A, Sunnari V, Nuutinen M, Laitala M. Mistreatment of university students most common during medical studies. *BMC Med Educ*. 2005 Oct;5:36.
11. Al-Hussain SM, Al-Haidari MS, Kouri NA, El-Migdadi F, Al-Safar RS, Mohammad MA. Prevalence of mistreatment and justice of grading system in five health related faculties in Jordan University of Science and Technology. *Med Teach*. 2008;30(3).

12. Frank E, Carrera JS, Stratton T, Bickel J, Nora LM. Experiences of belittlement and harassment and their correlates among medical students in the United States: Longitudinal survey. *Br Med J*. 2006;333(7570):682–4.
13. Uhari M, Kokkonen J, Nuutinen M, Vainionpaa L, Rantala H, Lautala P, et al. Medical student abuse: an international phenomenon. *JAMA*. 1994 Apr;271(13):1049–51.
14. Ahmer S, Yousafzai AW, Bhutto N, Alam S, Sarangzai AK, Iqbal A. Bullying of medical students in Pakistan: A cross-sectional questionnaire survey. *PLoS One*. 2008;3(12):3–6.
15. Mahood SC. Medical education: Beware the hidden curriculum. *Can Fam Physician*. 2011 Sep;57(9):983–5.
16. Brown MEL, Coker O, Heybourne A, Finn GM. Exploring the Hidden Curriculum’s Impact on Medical Students: Professionalism, Identity Formation and the Need for Transparency. *Med Sci Educ*. 2020 Sep;30(3):1107–21.
17. Kendall MJ. Those who can, do; those who can’t, bully. *Br Med J*. 2002;324(7340):792.
18. Gianakos AL, Freischlag JA, Mercurio AM, Haring RS, LaPorte DM, Mulcahey MK, et al. Bullying, Discrimination, Harassment, Sexual Harassment, and the Fear of Retaliation During Surgical Residency Training: A Systematic Review. *World J Surg*. 2022 Jul;46(7):1587–99.
19. Björkqvist K. Social defeat as a stressor in humans. *Physiol Behav*. 2001 Jun;73(3):435–42.
20. Monrouxe L V, Rees CE, Dennis I, Wells SE. Professionalism dilemmas, moral distress and the healthcare student: insights from two online UK-wide questionnaire studies. *BMJ Open* [Internet]. 2015;5(5). Available from: <https://bmjopen.bmj.com/content/5/5/e007518>
21. Fried JM, Uijtdehaage S. An abuse-free medical school environment: an ethical imperative. *Virtual Mentor*. 2014 Mar;16(3):187–91.
22. Moradi E. Examining Hofstede’s Cultural Dimensions in Iranian and Chinese Context: A Mixed Methods Approach. *Innovare J Educ*. 2024;12(2):6–14.
23. Colenbrander L, Causer L, Haire B. “If you can’t make it, you’re not tough enough to do medicine”: A qualitative study of Sydney-based medical students’ experiences of bullying and harassment in clinical settings. *BMC Med Educ*. 2020;20(1):1–12.

24. Abdollahi Z, Barkhordari-Sharifabad M, Nasiriani K, Fallahzadeh H. Investigation of bullying behaviors in clinical settings from the nursing students' views. *Iran J Med Educ* [Internet]. 2020;20(0). Available from: <http://ijme.mui.ac.ir/article-1-5056-fa.html>
25. Salimi H, Mehralitabr Firozjaie A, Najarpourian S, Ziaaddini Z. Investigation of Bullying and Harassment in the Workplace Using the Psychometric Properties of the Negative Acts Questionnaire-Revised (NAQ-R) in Nurses. *Qom Univ Med Sci J* [Internet]. 2019;12(11). Available from: <http://journal.muq.ac.ir/article-1-1963-en.html>
26. Golparvar M, Khatonabadi G. Structural Model of the Relationship between Bullying in Hospital Environments and Negative effect and Psychosomatic Complaints among female Nurses. *J Nurs Educ* [Internet]. 2017;4(5). Available from: <http://ijpn.ir/article-1-699-en.html>
27. Elghazally NM, Atallah AO. Bullying among undergraduate medical students at Tanta University, Egypt: a cross-sectional study. *Libyan J Med* [Internet]. 2020;15(1). Available from: <https://doi.org/10.1080/19932820.2020.1816045>
28. AlMulhim AA, Nasir M, AlThukair A, Alnasser M, Pikard J, Ahmer S, et al. Bullying among medical and nonmedical students at a university in Eastern Saudi Arabia. *J Fam Community Med*. 2018;25(3):211–6.
29. Lund EM, Ross SW. Bullying Perpetration, Victimization, and Demographic Differences in College Students: A Review of the Literature. *Trauma Violence Abuse*. 2017 Jul;18(3):348–60.
30. Waseem M NA. Identifying and Addressing Bullying. [Updated 2023 Dec 13] [Internet]. Updated 20. (FL) S [Internet]. TI, editor. Treasure Island (FL): StatPearls Publishing; Available from: <https://www.ncbi.nlm.nih.gov/books/NBK441930/>
31. McMahon L. Bullying and harassment in the workplace. Vol. 12, *International Journal of Contemporary Hospitality Management*. 2000. 384–387 p.
32. Mukhtar F, Daud S, Manzoor I, Amjad I, Saeed K, Naeem M, et al. Bullying of medical students. *J Coll Physicians Surg Pak*. 2010 Dec;20(12):814–8.
33. Averbuch T, Eliya Y, Van Spall HGC. Systematic review of academic bullying in medical settings: Dynamics and consequences. *BMJ Open*. 2021;11(7):1–17.

34. Ferine KF, Aditia R, Rahmadana MF, Indri. An empirical study of leadership, organizational culture, conflict, and work ethic in determining work performance in Indonesia's education authority. *Heliyon* [Internet]. 2021;7(7):e07698. Available from: <https://www.sciencedirect.com/science/article/pii/S2405844021018016>
35. Heidarzadeh AH, Hedayati BH, Huntington MKH, Alvandi MA, Aarabi AA, Farrokhi BF, et al. Challenges Associated with the Education of Family Physicians in Iran: A Systematic Review. *J Med Educ Futur Demands* [Internet]. 21(1):e130153. Available from: <http://publish.brieflands.com/articles/jme-130153.bib>
36. Fnais N, Al-Nasser M, Zamakhshary M, Abuznadah W, Dhukair S Al, Saadeh M, et al. Prevalence of harassment and discrimination among residents in three training hospitals in Saudi Arabia. *Ann Saudi Med*. 2013;33(2):134–9.
37. Sager F, Gofen A. The polity of implementation: Organizational and institutional arrangements in policy implementation. *Governance*. 2022;35(2):347–64.