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## ORIGINAL RESEARCH

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## Frequency of bullying perceived in clinical practices of last year interns of a medicine school: cross sectional study

*Frecuencia de matoneo percibido en prácticas clínicas de estudiantes de internado en último año de una facultad de medicina. Estudio de corte transversal*

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### | Abstract |

**Introduction:** During the medical internship year, students attend several hospitals and are observed and influenced by postgraduate students, general practitioners and other interns, who provide them with fundamental support regarding professional training. Bullying is defined as an aggressive behavior that occurs between a perpetrator and a victim in different scenarios and authority relationships, such as clinical practices at Medicine programs.

**Objective:** To describe the perceived frequency of bullying among a group of interns of the Faculty of Medicine from Universidad Nacional de Colombia during internship.

**Materials and methods:** A transversal analytical study was performed through a questionnaire applied to 82 medical interns of the School of Medicine from Universidad Nacional de Colombia.

**Results:** The perceived frequency of bullying was 90%. Statistically significant differences were not found in the stratified analysis by sex or place of practice. In most cases, bullying was perpetrated by other interns, while residents and specialists showed a lower frequency.

**Conclusion:** Perceived frequency of bullying was higher than expected according to the existing literature. These results can be used as a basis for new studies.

**Keywords:** Students; Health Occupations; Bullying; Education, Medical; Questionnaires (MeSH).

### | Resumen |

**Introducción.** Durante el año de internado, los estudiantes acuden a diversos hospitales y se encuentran bajo la mirada e influencia de estudiantes de posgrado, médicos generales, otros médicos internos y especialistas que brindan un apoyo importante en su formación. El matoneo o bullying es un comportamiento agresivo que se da entre un atacante y una víctima y que puede ocurrir en múltiples escenarios con diferentes relaciones de poder como las prácticas clínicas en la carrera de Medicina.

**Objetivo.** Describir la frecuencia de matoneo percibida en un grupo de médicos internos de la Universidad Nacional de Colombia.

**Materiales y métodos.** Estudio de corte transversal analítico realizado a través de una encuesta aplicada a 82 médicos internos de la Universidad Nacional de Colombia.

**Resultados.** Se encontró una percepción de matoneo del 90% sin diferencias estadísticamente significativas al realizar el análisis estratificado por género y lugar de rotación. Las conductas de matoneo son llevadas a cabo en su mayoría por pares académicos y en menor medida por residentes y especialistas.

**Conclusiones.** La percepción de matoneo resultó ser mayor a la reportada en la literatura. Estos resultados pueden emplearse como información de base para nuevos estudios.

**Palabras clave:** Estudiantes; Empleos en salud; Acoso escolar; Educación médica; Cuestionarios (DeCS).

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## Introduction

The attention given to bullying management is important at all levels of education; however, greater concern is seen on elementary schools and high schools than on higher education (1-3).

Medical Subject Headings (MeSH) define the word 'bullying' as "aggressive behavior that is intended to cause physical or psychological damage, verbally or physically, due to the imbalance of power, strength or status between the aggressor and the victim" (5). The British Medical Association points out this practice as "a persistent behavior towards an individual, which consists in intimidating, demeaning, offensive or malicious treatment and undermines confidence and self-esteem of the receptor" (4).

Bullying can include humiliation or ridicule in public, limited opportunities or privileges, exclusion from decision making, change in roles and daily activities abruptly and/or without prior notice, and also lack of information at certain times (6). In Colombia, Law 1620 of 2013 addresses bullying, but the scope of this document is limited to schools and does not include universities (1). Since prevalence decreases with age, the study of bullying has been of interest in basic education; however different research findings conclude that there is an increase of this issue during the university period (2,3).

According to Silva-Villarreal *et al.* (7), medical students are an emotionally vulnerable population that is exposed to stressful situations; Bastías *et al.* (4) noted that "medical training has been traditionally considered difficult and demanding" and for this reason, students are at risk of both generating or suffering bullying.

In Colombia, Paredes *et al.* (2) reported a prevalence of 19.68% of bullying in undergraduate medical students. In the opinion of students, bullying has effects on their mental health, social life and image of the medical profession (4).

In England, Timm (8) conducted a study with nursing and medical students, and found that 18% of them have experienced or witnessed humiliating or offensive comments by a physician/professor (44%). In the same country, Quine (9) found that residents of medical specialties are also victims, and reported that, at some point, they felt affected by this dynamic (9).

Similarly, in Saudi Arabia, Alzahrani (10) reported that 28% of students have been victims of bullying, finding the highest prevalence during the internship. In Pakistan, Mukhtar *et al.* (11) found that 66% of students had experienced bullying in the past six months, while Ahmer *et al.* (12) reported that 52% of students had experienced bullying and established that the main offenders were professors, with 46%.

Timm (8) suggests that the training of health professionals is associated with negative role models affecting student empathy on the long term, which can trigger behaviors such as bullying; on the other hand, Kassebaum & Cutler (13) state that the culture of abuse is considered as part of medical training, as a normal behavior and even as a useful learning experience.

The psychological consequences of this behavior are relevant in educational processes and have an impact on work life and interaction with peers. Bastías *et al.* discuss on how Silver (4) concluded that changes in the attitude of professionals towards their patients could be the result of hostile and punitive damages received during medical school and, also, how Perales *et al.* (4) suggest that the stress suffered by medical students during their training is high, which could endanger their mental health.

Other actions related to bullying behaviors include non-verbal and hierarchy dynamic behavior, which underestimate emotional

expressions and generate actions aimed at confirming that "bullying is not always expressed through yelling" (14); these actions include ignoring, denying and deceiving.

Considering how prevalent this dynamic is in medical schools and recognizing the importance of this practice in the training process, the objectives of this research are to determine and to describe the frequency of bullying perceived by resident physicians of the Faculty of Medicine from Universidad Nacional de Colombia during their last year of studies (2).

## Materials and methods

Descriptive cross-sectional study in which students of the last year of the medical major, who agreed to participate, were included; a sample of 72 participants was studied for a prevalence of 20%.

This scale is an adaptation of the "Workplace bullying in junior doctors questionnaire" by Dr. Lyn Quinne, who works for the "Centre for Research in Health Behaviour" at the University of Kent in England (9). This Spanish version is used by Paredes *et al.* (2) but with no evidence of validation. The questionnaire consists of 49 questions, of which 45 are part of the original Likert scale and four were suggested by non-formal expert consensus.

A total group of 89 students of the last year of Medicine responded a self-administered survey one day before their graduation ceremony. Informed consent was obtained verbally to maintain anonymity in the questionnaires and data analysis was performed using STATA 12.1 program

Based on the type of variables and their distribution, data were presented in proportions and median summary and interquartile range (IQR) were presented as measures. To identify the differences between groups, the  $\chi^2$  test and Fisher's exact test were used. To evaluate possible associations of OR prevalence, the 0.05 statistical significance was utilized. This study was approved by the Ethics Committee of the Faculty of Medicine from Universidad Nacional de Colombia and privacy was preserved throughout the process.

## Results

Participation was 92% (n=82), with an average age of 24 (IQR:2), median socioeconomic status 3 (IQR:1) and the highest record related to place of origin was the Andean region.

When assessing a possible association with the perception of bullying during internship, 74 of 82 participants (90.24%) perceived themselves as victims of some type of behavior related to bullying. In addition, 38 students (46.34%) said they had perceived this dynamic during the first five semesters of the major with an OR=0.6 (95%CI:0.08-3.36) and 42 students (51.22%) between the sixth and tenth semester with OR=1.49 (95%CI:0.26-10.28).

Table 1 summarizes the main findings reported on behaviors referred to *overload of extra responsibilities in comparison with other peers* (52.44%) and *requests to perform activities outside the professional or academic activities* (47.56%).

There are common offenders for certain actions: first, residents and specialists, followed by academic peers (other interns) and finally, professors.

The item '*possible triggers of bullying behaviors*' had a low response rate (39%). Those who answered this question identified the way of thinking or expression as the main cause (Table 2). Within the group '*Others*', academic performance and being a student from Universidad Nacional were found as causes of bullying behavior. Only 76 participants answered the *Sex* variable in the survey.

**Table 1.** Perceived frequency of bullying by medical interns during their last year of training.

Bullying behavior	Total % (n)	Frequency								Aggressor agent %	
		Never		Occasionally		Once a week		More than once a week			
		n	%	n	%	n	%	n	%		
Overload of extra responsibilities	52.44% (43/82)	39	47.5	33	40.2	2	2.4	8	9.76	Resident	27.8
										Specialist	20.2
										Academic peer	5
Request to perform activities outside professional or academic fields	47.56% (39/81)	42	51.2	32	39	1	1.2	6	7.32	Specialist	30
										Resident	28.7
										Academic peer	6.2
Victim of gossip	45.12% (37/82)	45	54.8	33	40.2	1	1.2	3	3.66	Academic peer	38.7
										Specialist	6.2
										Resident	5
Assignment of activities without notice	42.69% (35/82)	47	57.3	29	35.3	3	3.6	3	3.66	Resident	26.8
										Specialist	19.5
										Professor	3.6
Academic pressure	41.46% (34/82)	48	58.5	31	37.8	1	1.2	2	2.44	Only agent to which the question is directed: professor	
Nicknames	35.37% (29/82)	53	54.6	23	28	1	1.2	5	6.10	Academic peer	24.3
										Resident	13.4
										Specialist	13.4
Extra or unjustifiable shifts or activities	26.83% (22/82)	60	73.1	21	25.6	0	0	1	1.22	No aggressor was suggested	
Attitudes directed towards ignoring students	24.39% (20/81)	61	74.3	14	17	2	2.4	4	4.88	Specialist	10.1
										Professor	6.3
										Resident	6.3
No information regarding rule changes	24.39% (20/80)	60	73.1	16	19.5	1	1.2	3	3.66	No aggressor was suggested	
Belittled efforts	21.95% (18/82)	64	78	16	19.5	0	0	2	2.44	Specialist	11.5
										Resident	8
										Professor	0
Derision in front of others	21.93% (18/82)	64	78	15	18.2	2	2.4	1	1.22	Specialist	13.4
										Resident	9.7
										Academic peer	2.4
Teasing by professors	20.73% (17/82)	65	79.2	15	18.2	2	2.4	0	0	Only agent to which the question is directed: professor	
Teasing or destructive comments	19.51% (16/81)	65	79.2	14	17	2	2.4	0	0	Academic peer	10.1
										Specialist	5
										Professor	1.2
Deliberate rejection during activities	13.42% (11/82)	71	86.5	10	12.2	0	0	1	1.22	Resident	6
										Academic peer	3.6
										Professor	2.4
Violence against property	12.20% (10/82)	72	87.8	10	12.2	0	0	0	0	Unknown	2.4
										Academic peer	2.4
										Resident	2.4
Taunts from classmates regarding relationship with professors	9.76% (8/81)	73	89	8	9.7	0	0	0	0	Only agent to which the question is directed: academic peers	
Hidden belongings	8.54% (7/82)	75	91.4	7	8.5	0	0	0	0	Academic peer	6
										Nursing staff	2.4

Bullying behavior	Total % (n)	Frequency								Aggressor agent %	
		Never		Occasionally		Once a week		More than once a week			
		n	%	n	%	n	%	n	%		
Verbal and non-verbal threats	6.1% (5/82)	77	93.9	4	4.8	0	0	1	1.22	Academic peer	4.8
										Professor	1.2
										Specialist	1.2
Aggressive emails or messages on mobile phone	6.1% (5/82)	77	93.9	4	4.8	0	0	1	1.22	Resident	3.6
										Academic peer	1.2
										Chief of interns	1.2
Physical violence	4.88% (4/82)	78	95.1	4	4.8	0	0	0	0	Academic peer	2.4
										Professor	1.2
										Specialist	1.2
Aggression through social networks	3.66% (3/82)	79	96.3	3	3.6	0	0	0	0	Academic peer	3.6

Source: Own elaboration based on the data obtained in the study.

**Table 2.** Internal factors identified by interns as the cause of perceived bullying.

Unresponsive	61%
Way of thinking or expressing	17%
Being a woman	11%
Other	8.5%
Being a man	6%
Physical appearance	2.4%
Election or sexual orientation	0

Source: Own elaboration based on the data obtained in the study.

After evaluating the results classified by gender, the perception of bullying was found mostly documented in males. 41 interns (54.67%) reported being victims of bullying behaviors, the most frequent being *overload of extra responsibilities* and *requests for activities not related to academic or job skills*. Among women, 28 interns (37.33%) reported perceiving bullying behaviors during their internship year, the most frequent being *victim of gossip*. The survey did not inquire about sexual harassment, but one of the respondents reported having been victim of “inappropriate attitudes” by fellow male peers. No significant differences were found in the frequency of perceived bullying by sex (OR=1.42 95%CI:0.24-8.32), however, there was a significant difference of 13.64% ( $X^2=4.73$ ,  $p=0.03$ ) in the frequency of perceived bullying related to the statement “my belongings were hidden or stolen during my internship”. Similarly, more than 28% of women reported “being a victim of gossip” by academic peers (Fisher=9.09,  $p=0.04$ ) (Table 3).

Table 4 summarizes the response actions of interns to perceived bullying behaviors.

Among those surveyed, 76 reported several practice sites, and since interns from Universidad Nacional de Colombia often attend several practice places during their internship year, this variable was considered (Table 5).

Most of the interns did at least one of their rotations in Bogota (67.11%); 21 doctors (27.63%) reported having completed their internship only in Bogota and 25 (32.89%) in other cities. There was no association between the number of rotation sites and the perception of bullying ( $x^2=2.67$ ,  $p=0.75$ ).

## Discussion

Bullying is a phenomenon studied in several fields, especially by those related to academic training given the impact this may have on the quality of life and prevalence in different levels of training (7). There is no standardized or recognized methodology that can be used to assess bullying behaviors in medical students; in this study, a non-validated questionnaire was applied, therefore, the conclusions that can be obtained from the results are doubtful.

A perception of bullying of 90.24% was found, which exceeds the frequency of 20% reported in the study by Paredes *et al.* (2), conducted in Colombia, and even the report by Silva-Villareal *et al.* (7) of 39.8% in basic and preclinical cycles of the Medicine major at Universidad de Panamá.

The high level of perceived bullying is worth noting because almost all students reported being victims of at least one aggressive behavior during their internship; most of them perceived these behaviors less than once a week. Practices related to bullying often vary in severity and frequency, but the data obtained and the instrument used do not provide tools to estimate their actual impact on academic, social and emotional performance of victims.

The perceived frequency of bullying increases as the major develops, which is consistent with the findings of Alzahrani (10). This may be influenced by variables such as time elapsed between the event and its registration, induction of responses or possible degrees of involvement of the specific event.

Within the group of interns interviewed, perceived bullying practices were related to overload, expressed in the increased responsibilities, and the request to perform activities unrelated to professional or academic fields, which was the most frequent bullying behaviour; besides the main aggressor agents were residents and specialists. A striking association of hierarchy dynamics and power relations was evident between the different levels of training in the field of medicine (8).

Although most medical interns who reported being victims were men, no increased risk of being a victim of bullying associated with this sex was found, and no other significant differences except for variables ‘*my belongings were hidden or stolen during the internship*’ were found more frequently in men; *being a victim of gossip* was more common in women, and as a trigger for bullying, *the way of thinking or expressing* had a higher prevalence, which coincided with the findings reported by Paredes *et al.* (2). There was no association of bullying with the number of rotations during the internship, an aspect that was not previously analyzed by any of the authors consulted.

Regarding the actions to respond to bullying behaviors, the results were similar to other studies (2): ignoring the behavior is the usual response. It is evident that looking for support from competent authorities to mitigate or denounce these actions was not common; this aspect can be related to people's fear of reporting the assault, which may be motivated by fear of loss of "force" in a hierarchical culture (8).

**Table 3.** Perceived frequency of bullying by interns in their last year.

Bullying behavior	Female n=32 (%)	Male n = 44 (%)	Total n=76 (%)
Overload of extra responsibilities	16 (41.03%)	23 (58.97%)	39 (51.32%)
Request to perform activities outside professional or academic fields	14 (37.84%)	23 (62.16%)	37 (49.33%)
Victim of gossip	17 (48.57)	18 (51.43)	35 (46.06%)
Assignment of activities without notice	14 (42.42%)	19 (57.58%)	33 (43.43%)
Academic pressure	14 (45.16%)	17 (54.84%)	31 (40.79%)
Nicknames	10 (37.03%)	17 (62.96%)	27 (35.53%)
Extra or unjustifiable shifts or activities	9 (47.37%)	10 (52.63%)	19 (25%)
Attitudes directed towards ignoring students	7 (35%)	13 (65%)	20 (26.67%)
Change of rules without notice	5 (29.41%)	12 (70.59%)	17 (22.66%)
Belittled efforts	5 (27.78%)	13 (72.22%)	18 (23.68%)
Derision in front of others	6 (40%)	9 (60%)	15 (19.74%)
Teasing by professors	4 (26.67%)	11 (73.33%)	15 (19.74%)
Teasing or destructive comments	5 (31.25%)	11 (68.75%)	16 (21.34%)
Deliberate rejection during activities	4 (36.36%)	7 (63.64%)	11 (14.48%)
Violence against property	3 (30%)	7 (70%)	10 (13.16%)
Taunts from classmates regarding relationship with professors	2 (33.33%)	4 (66.67%)	6 (7.89%)
Hidden belongings	0 (0%)	6 (100%)	6 (7.89%)
Verbal and non-verbal threats	1 (20%)	4 (80%)	5 (6.58%)
Aggressive emails or messages on mobile phone	2 (40%)	3 (60%)	5 (6.58%)
Physical violence	0 (0%)	3 (100%)	3 (3.95%)
Aggression through social networks	1 (33.33%)	2 (66.67%)	3 (3.95%)

Source: Own elaboration based on the data obtained in the study.

**Table 4.** Actions taken by interns in response to perceived bullying in the last year of studies.

Action	n=63
Ignoring what was happening	38 (43.3%)
Confronting the person who generated the dynamic	18 (22%)
Reporting the issue to someone else	10 (12.1%)
Making formal complaints	7 (8.5%)
Threatening to report the situation to an authority	2 (2.4%)
Requesting the change of the group or place of rotation	2 (2.4%)
Requesting support from university welfare services	1 (1.2%)
Other	1 (1.2%)

Source: Own elaboration based on the data obtained in the study.

**Table 5.** Frequency of bullying perceived by interns by number of practice sites during internship.

No. practice sites	No bullying reports		Bullying reported		Total	
	n	%	n	%	n	%
1	4	57.1	38	55	42	55.2
2	2	28.5	24	34.7	26	34.2
3	1	14.2	2	2.9	3	3.9
4	0	0	1	1.4	1	1.3
5	0	0	3	4.3	3	3.9
6	0	0	1	1.4	1	1.3
Total	7	100	69	100	76	100

Source: Own elaboration based on the data obtained in the study.

## Conclusions

The perception of bullying in this study was higher than expected according to the sources consulted (2,7); this information could account for an underlying problem that requires further study.

One of the elements that may have influence on the high perception of bullying is the inheritance of hierarchical patterns, as well as the low rate of complaint and request for help.

When addressing training or the strengthening of health skills, there is a reference to education that must thrive despite the difficulties of the current system, which limits the autonomy and initiative of a doctor (15); under these circumstances, new problems arise, such as the difficulty for teamwork (16), and even the depersonalization of health care (17). The academy allows the training of doctors with advanced scientific, technical-ethical, and social preparation (18); however, the required skills do not often take into account humanization of health as a key aspect of training and performance of health professionals.

The limitation of this study is that the information used as the basis for this research was provided by a non-validated survey-like instrument, so its results are highly subjective and could only be comparable with findings of other surveys using a similar instrument.

There is a need to generate validated instruments for documenting bullying situations during the training of medical students and for allowing optimal characterization of the situation and possible interventions for surveillance.



## Conflict of interests

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