

Workplace harassment and burnout syndrome among health personnel at a referral hospital

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ABSTRACT

Objective: To determine the association between workplace harassment and burnout syndrome among healthcare personnel of a Peruvian referral hospital.

Materials and methods: An analytical cross-sectional study which included internists, surgeons, nurses, residents, interns and nursing technicians from the Medicine and Surgery departments of Hospital Nacional Hipólito Unanue in Lima, Peru. The Maslach Burnout Inventory-Human Services Survey (MBI-HSS) and the Negative Acts Questionnaire-Revised (NAQ-R) were used for the assessment of burnout and harassment, respectively. Additionally, the association with age, gender, occupation, marital status, workplace, salary satisfaction, family burden, physical activity, harmful habits, vacations, religious affiliation, number of jobs, monthly remuneration, job tenure, working hours per week, number of patients seen per day, weekly shifts and rest hours was evaluated. A multivariate analysis was conducted using a multiple logistic regression model and the presence or absence of burnout as an outcome variable.

Results: The study consisted of 206 participants, out of whom 22 (10.7 %) suffered burnout and 27 (14 %) moderate to severe harassment. In the bivariate analysis, age (*OR* 0.94; 95 % *CI* 0.89-0.99; *p* = 0.02), marital status such as married and cohabiting (*OR* 2.85; 95 % *CI* 1.01-8.06; *p* = 0.04) and harassment (*OR* 5.20; 95 % *CI* 1.92-14.09; *p* = 0.009) were associated with burnout. In the multivariate analysis, the only significant predictor of burnout was workplace harassment. Moderate to severe harassment was associated with *OR* 4.00 (95 % *CI* 1.4-11.3; *p* = 0.009) compared to mild harassment.

Conclusions: It is important to identify health workers suffering workplace harassment due to its strong association with burnout syndrome. It is essential to carry out further research to understand and address the problem of workplace harassment and its influence on the development of burnout, as well as studies to evaluate interventions aimed at preventing both workplace harassment and burnout.

Keywords: Bullying; Harassment, Non-Sexual; Burnout, Professional (Source: MeSH NLM).

Hostigamiento laboral y síndrome de *burnout* en personal sanitario en un hospital de referencia

RESUMEN

Objetivo: Evaluar la asociación entre la exposición a hostigamiento laboral y la presencia de síndrome de *burnout* en el personal sanitario de un hospital de referencia peruano.

Materiales y métodos: Estudio transversal, analítico. Se incluyó a médicos internistas, cirujanos, enfermeras, residentes, internos de medicina y técnicos de enfermería de los departamentos de Medicina y Cirugía del Hospital Nacional Hipólito Unanue en Lima, Perú. Se usaron los cuestionarios Maslach Burnout Inventory-Human Services Survey (MBI-HSS) y Negative Acts Questionnaire-Revised (NAQ-R) para la detección de *burnout* y hostigamiento, respectivamente. Adicionalmente, se evaluó la asociación con la edad, género, ocupación, estado civil, lugar de trabajo, conformidad con salario, carga

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familiar, actividad física, hábitos nocivos, vacaciones, afiliación religiosa, número de trabajos, remuneración mensual, tiempo de trabajo, horas laborales por semana, número de pacientes atendidos por día, guardias semanales y horas de descanso. El análisis multivariado se realizó mediante el uso de un modelo de regresión logística múltiple, para lo cual se utilizó como variable respuesta la presencia o no de *burnout*.

Resultados: Se incluyeron a 206 participantes. De ellos, 22 (10,7 %) presentaron *burnout* y 27 (14 %), hostigamiento moderado a elevado. En el análisis bivariado, la edad (OR 0,94; IC 95 % 0,89-0,99; $p = 0,02$), el estado civil casados y convivientes (OR 2,85; IC 95 % 1,01-8,06; $p = 0,04$) y el hostigamiento (OR 5,20; IC 95 % 1,92-14,09; $p = 0,009$) se asociaron a la presencia de *burnout*. En el análisis multivariado, el único predictor significativo de *burnout* fue el hostigamiento laboral. La presencia de un hostigamiento moderado a elevado se asoció a un OR de 4,00 (IC 95 % 1,4-11,3; $p = 0,009$) comparado con bajos niveles de hostigamiento.

Conclusiones: Es importante identificar a trabajadores de la salud con hostigamiento laboral por su fuerte asociación con el síndrome de *burnout*. Se considera indispensable la realización de una investigación complementaria que permita entender y abordar la problemática del hostigamiento laboral y su influencia en el desarrollo de *burnout*, así como estudios que permitan evaluar intervenciones destinadas a prevenir tanto el hostigamiento laboral como el *burnout*.

Palabras clave: Bullying; Acoso no Sexual; Agotamiento Profesional (Fuente: DeCS BIREME).

INTRODUCTION

Workplace harassment and burnout syndrome among healthcare personnel have psychopathological and behavioral consequences that affect health at individual and organizational level ^(1,2). Burnout is defined as a psychological syndrome characterized by emotional exhaustion, depersonalization and reduced personal accomplishment that can occur among individuals while performing their work with other people. This may affect workers psychologically, thus damaging their work (absenteeism, accidents, lack of motivation and negativism) and family (divorces and indifference), and even induce them to commit suicide ⁽³⁻⁵⁾. Furthermore, such condition is associated with poor patient care and malpractice increase among physicians ^(4,5). The frequency in which burnout is present among healthcare workers is very different: it may range between 3 % and 78 % in different studies ⁽⁶⁻⁸⁾.

Workplace harassment is defined as the systematic exposure to humiliation, hostile and violent behaviors, and oppressive unethical communication against one or more workers ⁽²⁾. Harassed subjects experience high levels of stress, musculoskeletal disorders, sleep disturbances, headaches, hypertension and gastrointestinal distress ⁽⁹⁾. Rates range between 8 % and 40 % among healthcare personnel ^(2,9). A study found that over 70 % of hospitals had cases of discrimination and workplace and sexual harassment by surgeons ⁽¹⁰⁾. Other studies found that 64 % of surgical residents, 57 % of females and 30 % of family physicians suffered workplace harassment ^(11,12).

Workplace harassment and burnout syndrome involve psychological and psychosomatic consequences that affect productivity and thus increase working hours lost ^(1,2,13).

Although exposure to harassment could be an important factor associated with the development of burnout syndrome, there are few studies ^(13,14) that have determined

this association among healthcare workers. The present study aimed to determine the association between workplace harassment and burnout syndrome among health personnel at a referral hospital in Lima, Peru.

MATERIALS AND METHODS

Study design and population

This was an analytical cross-sectional study. The universe consisted of internists, surgeons, nurses, residents, medical interns and nursing technicians from the Medicine and Surgery departments of Hospital Nacional Hipólito Unanue in Lima, Peru. The sample size was calculated for an association with OR ⁽¹⁵⁾ 3 based on an 80 % power and 95 % confidence interval. Due to the possibility of missing data and in order to increase the study statistical power, it was decided to include 207 participants.

The study excluded healthcare personnel who did not complete the questionnaires and those who refused to participate, as well as administrative staff and from other services that did not care for patients directly.

Variables and measurements

The dependent variable was the presence of burnout syndrome among health personnel measured by the Maslach Burnout Inventory-Human Services Survey (MBI-HSS), and the independent variable was the presence of workplace harassment measured by the Negative Acts Questionnaire-Revised (NAQ-R). The study included covariables such as age, gender, occupation, marital status, workplace, salary satisfaction, family burden, physical activity, harmful habits, vacations, religious affiliation, number of jobs, monthly remuneration, job tenure, working hours per week, number of patients seen per day, weekly shifts and rest hours.

The MBI-HSS—adapted to health personnel for the evaluation of burnout ^(3,16)—and the NAQ-R to evaluate

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workplace harassment were used^(17,18). The MBI-HSS measures the three aspects of burnout syndrome: emotional exhaustion, depersonalization and personal accomplishment. A high score in the dimensions of emotional exhaustion (more than 27 points) and depersonalization (more than 10 points) and a low score in personal accomplishment (less than 33 points) allows diagnosing this syndrome. The MBI-HSS has been studied and validated in healthcare occupational groups^(1,3,8,14,16). The NAQ-R—validated among health personnel^(17,18)—measures exposure to workplace harassment within the last six months^(17,18) and consists of three interrelated factors: work-related harassment (7 items), person-related harassment (12 items) and physical intimidation (3 items)^(13,17,18). Values of 22-44, 44-66, 66-88 and 88-110 points were used to account for a low, moderate, severe and very severe score of harassment, respectively. The recruitment of participants was conducted with the prior consent of the Medicine and Surgery departments of the abovementioned hospital. The data collection card and informed consent form were delivered to each participant in person to be filled out anonymously. Data was collected at the end of the medical round at the general ward and at the end of the outpatient consultation from February to March 2018.

Statistical analysis

A Microsoft Excel database was created, and the statistical analysis was performed using STATA Statistical Software Release 11 (Stata Corporation, College Station, TX). Descriptive (univariate) statistics was calculated with measures of central tendency (mean) and dispersion (standard deviation) according to the data distribution. The bivariate analysis assessed the association between

dependent variables (presence or absence of burnout syndrome) and independent variables using the chi-square and Student's *t* tests for categorical and numerical variables, respectively.

The multivariate analysis was conducted using a multiple regression logistic model, with the presence of burnout as an outcome variable, and harassment and significant variables in the bivariate analysis as predictor variables. The resulting multivariate model was refined later, with the successive exclusion of variables with higher *p* values until getting a final model in which all the predictor variables were significant. A *p* value < 0.05 was considered statistically significant.

Ethical considerations

The study complied with the principles of the Declaration of Helsinki⁽¹⁹⁾ and was approved by the institutional research ethics committees of Hospital Nacional Hipólito Unanue (33821) and Universidad Científica del Sur (278-2018). An informed consent form was included to administer the surveys.

RESULTS

A total of 207 healthcare workers from the Medicine and Surgery departments were evaluated. Only one participant was excluded because of missing data in the survey. Among the 206 evaluated participants, 22 (10.7 %) experienced burnout. The mean age was 37 ± 12 years, and the number of female participants in the study was 128 (62 %) (Table 1). Most of the participants were nurses and nursing technicians. Table 2 shows the classification by type of personnel with and without burnout.

Table 1. Personal and labor characteristics of health personnel

Variable	Total (N = 206)	With burnout (n = 22)	Without burnout (n = 184)	<i>p</i> value
Age (SD)	37.57 (12.00)	31.68 (8.30)	38.28 (12.19)	0.01
Female sex	128 (62.14 %)	11 (50.00 %)	117 (63.59 %)	0.21
Professionals	98 (47.57 %)	9 (40.91 %)	89 (48.37 %)	0.52
Technicians	70 (33.98 %)	7 (31.82 %)	63 (34.24 %)	0.52
Medical interns	38 (18.45 %)	6 (27.27 %)	32 (17.39 %)	0.52
Permanent staff	131 (63.59 %)	12 (54.55 %)	119 (64.67 %)	0.35
Having a steady partner	89 (43.20 %)	5 (22.73 %)	84 (45.65 %)	0.04
Workplace: general ward	158 (76.70 %)	17 (77.27 %)	141 (76.63 %)	0.85
General ward, emergency room and/or operating room	23 (11.17 %)	3 (13.64 %)	20 (10.87 %)	0.85
Salary satisfaction	36 (17.48 %)	4 (18.18 %)	32 (17.39 %)	0.92
Dependents	111 (53.88 %)	8 (36.36 %)	103 (55.98 %)	0.08

Variable	Total (N = 206)	With burnout (n = 22)	Without burnout (n = 184)	p value
Would choose their job again	164 (79.61 %)	15 (68.18 %)	149 (80.98 %)	0.15
More than two jobs	19 (9.20 %)	2 (9.00 %)	17 (9.20 %)	1
Monthly remuneration under 2,000 soles	87 (42.20 %)	13 (59.00 %)	74 (40.20 %)	0.09
More than two years at the same job	135 (65.50 %)	13 (59.00 %)	122 (66.30 %)	0.50
Less than 36 working hours per week	42 (20.30 %)	2 (9.00 %)	40 (21.70 %)	0.16
More than 20 patients seen per day	99 (48.00 %)	11 (50.00 %)	88 (47.80 %)	0.84
More than two weekly shifts	99 (48.00 %)	13 (59.00 %)	86 (46.70 %)	0.27
More than eight hours of sleep per day	20 (9.70 %)	1 (4.50 %)	19 (10.30 %)	0.70

SD: standard deviation.

Table 2. Classification by type of personnel with and without burnout

Type of personnel	Total (N = 206)	With burnout (n = 22)	Without burnout (n = 184)	p value
Internists	9 (4.30 %)	0 (0.00 %)	9 (100.00 %)	0.20
Surgeons	12 (5.80 %)	1 (8.30 %)	11 (91.70 %)	
Nurses	62 (30.10 %)	4 (6.50 %)	58 (93.50 %)	
Nursing technicians	70 (34.00 %)	7 (10.00 %)	63 (90.00 %)	
Residents	13 (7.90 %)	4 (30.80 %)	9 (69.20 %)	
Medical interns	37 (17.90 %)	6 (16.20 %)	31 (83.80 %)	

The number of participants who suffered low and moderate to severe workplace harassment was 178 (86 %) and 28 (14 %), respectively (Table 3). No worker experienced very severe harassment. The mean NAQ-R score in the total population was 34. Table 4 shows the comparison of burnout with harassment by occupational group.

Table 3. Type of personnel and workplace harassment

Type of personnel	Total (N = 206)	Low harassment (n = 178)	Moderate to severe harassment (n = 28)	p value
Internists	9 (100.00 %)	9 (100.00 %)	0 (0.00 %)	0.009
Surgeons	12 (100.00 %)	8 (66.60 %)	4 (33.30 %)	
Nurses	62 (100.00 %)	59 (95.20 %)	3 (4.80 %)	
Nursing technicians	70 (100.00 %)	62 (88.60 %)	8 (11.40 %)	
Residents	13 (100.00 %)	10 (76.90 %)	3 (23.00 %)	
Medical interns	37 (100.00 %)	27 (72.90 %)	10 (27.00 %)	

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Table 4. Comparison of burnout with harassment per occupational group

Occupational group	Harassment	Total (N = 206)	With burnout (n = 22)	Without burnout (n = 184)	p value
Assistant physicians	Low	17 (80.90 %)	0 (0.00 %)	17 (80.90 %)	0.035
	Moderate to severe	4 (19.00 %)	1 (4.70 %)	3 (14.20 %)	
Nurses	Low	59 (95.10 %)	3 (4.80 %)	56 (90.30 %)	0.052
	Moderate to severe	3 (4.80 %)	1 (1.60 %)	2 (3.20 %)	
Nursing technicians	Low	62 (88.50 %)	4 (5.70 %)	58 (82.80 %)	0.006
	Moderate to severe	8 (11.40 %)	3 (4.20 %)	5 (7.10 %)	
Residents	Low	10 (76.90 %)	3 (23.00 %)	7 (53.80 %)	0.913
	Moderate to severe	3 (23.00 %)	1 (7.70 %)	2 (15.30 %)	
Medical interns	Low	27 (72.90 %)	4 (10.80 %)	23 (62.10 %)	0.704
	Moderate to severe	10 (27.00 %)	2 (5.40 %)	8 (21.60 %)	

Concerning the bivariate analysis, it was found that age with *OR* 0.94 (95 % *CI* 0.89-0.99; *p* = 0.02), marital status with *OR* 2.85 (95 % *CI* 1.01-8.06; *p* = 0.04) and NAQ-R scores with *OR* 5.20 (95 % *CI* 1.92-14.09; *p* = 0.009) (work-related harassment, person-related harassment and physical intimidation) were statistically significant. Participants with burnout were significantly younger (median age 30 years vs. 36 years; *p* = 0.012) and had a steady partner (22.7 % vs. 45.6 %; *p* = 0.04).

When analyzing the NAQ-R as a categorical variable, by dichotomizing it in low (22 to 44 points) and moderate to severe (> 44 points) levels of harassment, it was found that 36 % of the participants with burnout suffered at least moderate harassment, while among those without burnout only 10 % experienced this level of harassment (*p* < 0.01).

In the multivariate analysis, the NAQ-R score was the only significant burnout predictor. The presence of moderate harassment was associated with *OR* 4.00 (95 % *CI* 1.4-11.3; *p* = 0.009) compared to a low level of harassment (Table 5).

Table 5. Association between burnout and workplace harassment: results of raw analysis and age- and marital status-adjusted analysis

Variable	Raw analysis <i>OR</i> (95 % <i>CI</i>)	<i>p</i> value	Adjusted analysis <i>OR</i> (95 % <i>CI</i>)	<i>p</i> value
Moderate to severe harassment (NAQ-R score > 44)*	5.20 (1.92-14.09)	0.001	4.00 (1.40-11.36)	0.009
Age	0.94 (0.89-0.99)	0.020	0.96 (0.91-1.01)	0.179
Civil status (married and cohabiting)	2.85 (1.01-8.06)	0.040	2.16 (0.70-6.60)	0.176

*Compared to low harassment; NAQ-R: Negative Acts Questionnaire-Revised.

DISCUSSION

The main finding of the study is the strong association between workplace harassment and the presence of burnout. This association was consistent in both the raw and adjusted analysis. Healthcare workers who did not suffer harassment had a very low frequency of burnout, while those harassed had a frequency of burnout of near 90 %, regardless of other factors. Although the high frequency evidenced in the study, there are few publications in the region that have associated burnout with harassment among healthcare personnel^(13,14,20,21,22). Research studies conducted in Korea^(13,22), Portugal⁽¹⁴⁾ and France⁽²⁰⁾ have shown results consistent with this work.

The frequency of burnout in research studies conducted among healthcare workers has been extremely variable^(4,5,8): the results have ranged between 2.8 %⁽⁸⁾ and 52 %⁽⁴⁾, depending on the population studied.

Regarding the frequency of workplace harassment among healthcare personnel, the finding of 14 % is different from the figures determined in other two studies^(10,23), which showed a prevalence of 39 % among surgeons and 57 % among residents in their first years in Oceania. Nevertheless, such result is similar to that found by Sá et al., who reported a prevalence of 13 % of workplace harassment among nurses of the public health system in Portugal⁽¹⁴⁾.

On the other hand, the frequency of 30.7 % of burnout and 23 % of moderate to severe harassment among residents from the Medicine and Surgery departments is different from that found by Llewellyn et al.⁽²³⁾, who determined 57 % of harassment in residents in their first years in Australia in 2015. Hu et al.⁽²⁴⁾, in the United States in 2018, identified that harassment was frequent among general surgery residents, especially females, and was associated with exhaustion and suicidal ideation.

In addition, the present study found 33.3 % of moderate to severe harassment among surgeons, which is similar to the figure determined by Ling et al.⁽¹¹⁾. Surgical specialty is not excepted from cases of workplace harassment since surgical assistants and residents are more likely to be victims of harassment compared to other personnel members⁽¹¹⁾.

The frequency of 6.4 % of burnout and 4.8 % of moderate to severe harassment among nursing personnel differs from the finding of Udho et al.⁽⁵⁾, who reported a frequency of burnout of 36 % among nurses in Uganda. Sá et al.⁽¹⁴⁾ found a prevalence of 13 % of harassment among nurses of the public health system in Portugal. Harassed nurses reported absenteeism and high job turnover⁽⁹⁾. Harassment among nurses may be associated with organizational culture, including hierarchical management and the lack

of empowerment among nursing personnel⁽²⁵⁻²⁹⁾.

The results are important because they allow identifying healthcare workers who experience workplace harassment as a risk group that may develop burnout syndrome. Interventions addressed to solve this problem may be useful to prevent the development of burnout syndrome. However, the usefulness of these possible interventions should be assessed by properly designed intervention studies.

The present study is considered the first one in Peru that relates exposure to workplace harassment with the presence of burnout syndrome among healthcare workers. However, its findings must be considered carefully due to some limitations. The main limitation of this study is that the NAQ-R as a tool might not reflect the real magnitude of harassment. Though it does not invalidate the results, it should be complemented with qualitative studies to have a more comprehensive view.

In conclusion, it is important to identify health workers suffering workplace harassment due to its strong association with burnout syndrome. It is essential to carry out further research to understand and address the problem of workplace harassment and its influence on the development of burnout, as well as studies to evaluate interventions aimed at preventing both workplace harassment and burnout. Finally, it is a priority to include the mental health of healthcare workers themselves and its determinants as a part of human resource management in healthcare services.

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