

Work-related violences and associated variables in oncology nursing professionals

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Abstract *Occupational violence is a problem that health professionals are exposed to daily. This cross-sectional study aimed at identifying the prevalence of violence at work (verbal/physical) and the variables related to it in nursing professionals working in oncology. Physical or verbal aggression was assessed through self-report. The relationship between sociodemographic, psycho-emotional and work-related violence (verbal/physical) variables was analyzed using the Chi-Square, Fisher's Exact, Student T and Mann-Whitney tests. The study sample consisted of 231 nursing professionals. The prevalence of physical or verbal aggression reported in the last year was 61.5%. A higher prevalence of aggression was evidenced in professionals who stated that they were tired at the end of the shift and presented reduced concentration during the shift. It is noteworthy that workers who suffered violence presented high levels of burnout in all subscales, a higher Mean score on the work stress scale and a lower Mean with regards to sleep quality. The findings of this study point to the need for institutional measures to prevent and control occupational violence.*

Key words *Violence at work, Nursing team, Human resources in health, Worker's health*

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Introduction

Violence is a phenomenon of high complexity and has multiple determinations that develop in society, and is influenced by history, culture, and politics¹⁻². It manifests itself in relationships permeated by oppression, intimidation, and fear, showing the proximity between violence and the exercise of power²⁻⁵, in hierarchical relationships where differences are transformed into inequalities²⁻⁵.

It is challenging to construct a single definition that encompasses all dimensions and multiplicities of violence². Thus, in this study, we chose to characterize it as an action undertaken by an individual, a group, or countries that promote the deprivation of rights and the physical, psychological, and moral harm to an individual or group³⁻⁴.

This work-related phenomenon constitutes an expression of violence, which is defined as a voluntary act against an individual or group, causing physical and/or psychological damage in the workplace, comprising interpersonal relationships and activities associated with work. Furthermore, work-related violence is also characterized by the deprivation of fundamental labor and social security rights, negligence with regards to working conditions, as well as the naturalization of death and illnesses as a result of work². It can be expressed through physical and/or psychological aggression, sexual harassment, abuse, and bullying, representing an important risk to which workers are exposed, impacting their health and with a direct impact on their work⁶⁻⁸.

In these scenarios, workers in the health sector stand out since they represent individuals that suffer from work-related violence, which corresponds to 25% of all violence in the workplace reported across the country⁶⁻⁸.

Regarding health professionals, when the proportion of violence is broken down into sectors of activity, important disparities in the magnitude of aggression suffered according to the area of activity and professional category are evident⁹⁻¹⁰. The highest risk sectors are psychiatry, emergency rooms, clinical units, and surgical units⁹⁻¹¹; and the professionals most at risk are the nursing staff, who are three times more at risk of work-related violence when compared to other health professionals⁶.

This reality can be associated with the hierarchization of the nursing work process and the stratification of professionals according to their

level of education¹². Brazilian nursing consists of three professional categories, namely: nurses, nursing technicians, and nursing assistants. Hygiene, comfort, and less complex activities are aimed at the latter, while more complex management and care activities are attributed to nurses¹². In this context, less value and social recognition are attributed to nursing activities that are associated with domestic work such as bathing, diaper changing, and feeding, among others, reflecting gender inequalities⁷⁻⁹.

In addition, we can highlight the nature of work routines that require direct and intense contact with patients and caregivers - sometimes weakened by illness or dissatisfied by the lack of resolution of the health care provided, as well as by the repetition of invasive procedures and lonely night shifts. In contrast, we can highlight the difficulties inherent in health services, such as delays in care, lack of sufficient professionals, and inadequate infrastructure⁶⁻⁸.

Another peculiarity of the professional nursing category is that it is mainly composed of women⁷⁻⁹, which may explain the high prevalence of violence suffered since the work environment reflects the gender inequalities present in the patriarchal society, and thus, women have greater work-related suffering due to bullying, sexual harassment, and stigmas of weakness and lower intellectual capacity¹³⁻¹⁴.

In this sense, a study carried out with women professionals who worked in nursing identified a high prevalence of verbal, physical, and sexual violence in the workplace (45.8%, 95%CI 38.5-53.4) that were perpetrated by patients, caregivers, and work colleagues¹¹. In nursing professionals working in the psychiatry, urgency, and emergency sectors, physical aggression was the most prevalent, and in other areas, verbal aggression was the most prevalent¹³.

Work-related violence, despite being present in high levels, has several impacts on the work process, namely: increased absenteeism, greater dissatisfaction with work, and alterations in the mental health of nursing workers⁷⁻⁹. It is not a public health problem that receives the needed attention, reflecting the lack of knowledge of notification procedures by the victimized professionals and the underuse of these instruments by the management⁷, which causes the invisibility of violence, hinders diagnosis, planning, implementation, and evaluation of prevention and control actions for this harm to workers' health.

Given this reality and the scarcity of studies that analyze the occurrence of occupational vio-

lence in nursing professionals working in oncology, the present study aimed to identify the prevalence of violence at work (verbal/physical) and the related variables (sociodemographic, performance professional, sleep quality, psycho-emotional - Burnout and work-related stress) in nursing professionals working in a High Complexity Oncology Center in the state of Rio de Janeiro.

Method

Type of study, location, period, sampling, and inclusion criteria

A cross-sectional study carried out with nursing professionals who worked at a hospital specialized in cancer treatment in the state of Rio de Janeiro.

This study is part of a larger research project entitled “Cardiovascular Risk and Allostatic Load in Nursing Professionals working in Oncology: bio-psychoemotional and work-related variables” presented to the “Adult Health Nursing Graduate Program – PROESA (*Programa de Pós-Graduação “Enfermagem na Saúde do Adulto”*)” from the School of Nursing at the University of São Paulo.

The sample calculation resulted in 220 professionals from a population of 574 nursing professionals and was performed using the SPSS version v.20.0 program, with a confidence level () of 5% and power of 80% (1 -) for the prevalence of hypertension of 40%. It is noteworthy that the selection of members of the sample took place through simple random sampling, using the method of the computational draw through a list of employees provided by human resources.

The inclusion criteria were individuals that were part of the nursing team (auxiliaries/technicians and nurses), worked in the cancer patient care division in inpatient units, and were linked to the institution for at least one year. Professionals who were on leave (n=11) and pregnant women (n=1) during the data collection period were excluded. Eight professionals who refused to participate in the study were replaced. With the aim of making up the selected sample (n=220), the 10% (n=22) that were part of the pilot study, and the replacement of any losses (n=115) were drawn, totalling 357 participants, 231 of which comprised the final sample (Figure 1).

Data collection was performed by a professionally trained team that consisted of 3 nurses from 12/01/2013 to 06/30/2015, a total of 18

months, in a quiet and private environment, close to the professional’s work environment.

Data collection took place through interviews. Participants were contacted in person, by phone, and/or by email, and received information about the study. Those who agreed to participate had a day and time scheduled to collect the data. After reading and signing two copies of the free informed consent form, guidance for filling out the questionnaires were initiated, and the data collection process began. The study was approved by the Research Ethics Committee under.

A questionnaire on the sociodemographic variables related to work, habits, and lifestyles was applied and, subsequently, the filling in of instruments that analyzed psycho-emotional variables was requested such as the Work Stress Scale (WSS), Maslach Burnout Inventory (MBI), Self-Reporting Questionnaire (SRQ-20), and Pittsburgh Sleep Quality Index (PSQI). It should be noted that all these instruments were validated for use in Brazil and showed high validity and reliability.

The occurrence of physical and/or verbal violence was evaluated based on the question: “Have you ever suffered physical and/or verbal aggression during hospital work in the last year?” with the possibility of a dichotomous answer (yes or no). If the answer to this question was positive (yes), the workers were asked about the aggressor, with the possibilities of answers, not mutually exclusive, being patients, companions, and professionals. Professionals who had more than one employment relationship were instructed to investigate the occurrence of violence at work at the study site.

The sociodemographic variables evaluated were sex, age, marital status, Ethnicity, and Monthly family income (R\$). The work-related variables were: Professional category; Graduated time (in years); Type of bond; Type of position; Highest education level completed; Number of employment relationships; Weekly working hours; Institutional working time (in years): Work scale; Shift work; Had an accident while working in the hospital; Worked whilst being tired; End the shift feeling psychologically tired and Decreased concentration during the shift (Chart 1).

In order to identify the presence of stress, perceived stress was evaluated through the question: “Do you consider yourself a nervous/stressed person?” and through the Work Stress Scale (WSS). The WSS is a unifactorial instrument with 23 Likert-type items (1: strongly disagree,

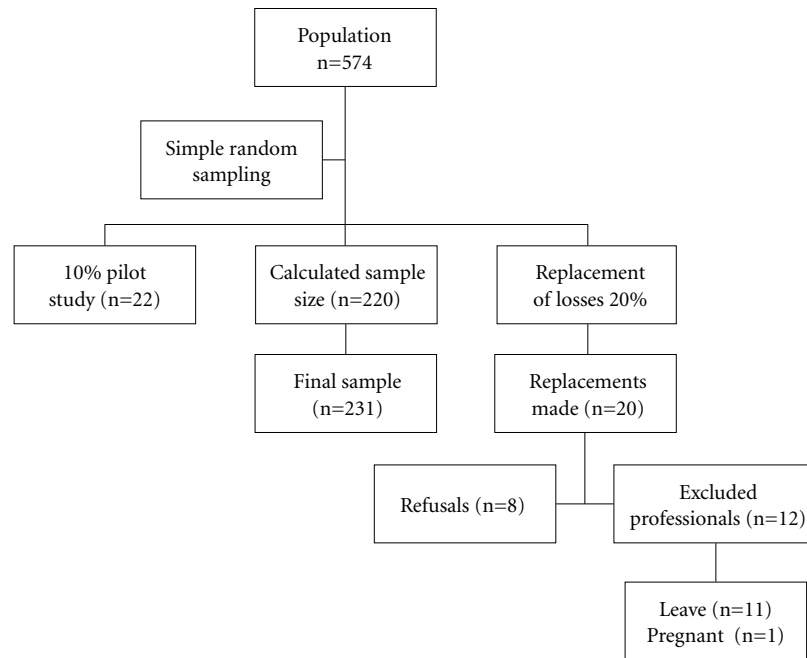


Figure 1. Flowchart of the sampling, exclusions, and losses process. Rio de Janeiro, Brazil, 2018.

Source: Authors elaboration.

2: disagree 3: partially agree, 4: agree and 5: fully agree). The total score of the scale ranges from 23 to 115 points. In this study, the definition of cut-off points was performed by means of thirds (low, moderate, and high)¹⁵⁻¹⁶.

Physical aggression was considered as the use of force that results in physical or psychological harm, and verbal aggression as the use of words in offensive attitudes aiming to humiliate, slander, or shame individuals or a group^{2,5}.

Burnout syndrome was investigated using the Maslach Burnout Inventory (MBI), version HSS (Human Services Survey)¹⁷⁻¹⁸, which has three dimensions – emotional exhaustion, depersonalization, and low professional achievement, subdivided into 22 items. In the present study, the presence of Burnout syndrome was identified by the occurrence of high levels in the three dimensions, concomitantly (emotional exhaustion ≥ 27 , depersonalization ≥ 10 , and low professional achievement ≤ 33), based on the recommendations in the table provided by the instrument manual.

Furthermore, the subjective quality of sleep was tracked using the Pittsburgh Sleep Quality Index (PSQI), constructed with the aim of providing a standardized measure of sleep quality. It

consists of 19 self-report questions grouped into seven components: 1) subjective sleep quality (evaluates individual perception of sleep quality); 2) sleep latency (time required to start sleep); 3) sleep duration (how long one remains sleeping); 4) habitual sleep efficiency (relation between the number of hours slept and the number of hours spent in bed, not necessarily sleeping); 5) sleep disorders (presence of situations that compromise sleep hours); 6) use of sleeping medication and 7) daytime sleepiness and daytime disturbances (refers to changes in mood and enthusiasm for performing routine activities). Each component will receive scores ranging from 0 to 3. A sum of the scores in each question will compose the global score with scores ranging from 0 to 21, the higher the score, the worse the sleep quality¹³. An overall score > 5 indicates that the individual is presenting a poor quality of sleep pattern¹³.

Data were recorded and tabulated in a spreadsheet with the aid of Microsoft Windows Excel through double entry.

Descriptive analysis was performed using absolute and relative frequencies for categorical variables and means and standard deviations (SD) for quantitative variables. Then, the

Chart 1. Categorization of sociodemographic and work-related variables, Brazil, 2021.

Variable	Categorização
Sociodemographic characteristics	
Sex	Male Female
Age group (in years)	20-29 30-39 40-49 ≥50
Ethnicity	White Non White
Marital status	Non-white White
Monthly family income (R\$)	Continuous variable presented as mean and standard deviation
Work-related characteristics	
Professional category	Nurse Nursing technicians/assistants
Graduated time (in years)	Continuous variable presented as mean and standard deviation
Type of bond	Statutory CLT
Type of position	Managerial Care
Highest education level completed	Technical level University graduate Residence/Specialization Masters
Number of employment relationships	1 2 3
Institutional working time (in years):	Continuous variable presented as mean and standard deviation
Work scale	Day worker Day duty Night duty
Shift work	Yes No
Had an accident while working in the hospital	Yes No
Worked whilst being tired	Frequently/sometimes Rarely
End the shift feeling psychologically tired	Frequently/sometimes Rarely/never
Decreased concertation during the shift	Frequently/sometimes Rarely/never

Source: Authors elaboration.

existence of a statistically significant difference between the occurrence of violence and the nominal or ordinal variables was assessed using Pearson's Chi-square test, likelihood ratio, or Fisher's exact test. And for continuous variables,

the Mann-Whitney U test or Student's t-test was used, depending on the distribution of the variable under study. Values of $p \leq 0.05$ were considered significant and the data were analyzed using the R statistical program version 3.2.1.

Results

Most nursing professionals were female (82.7%), non-white (54.5%), lived with a partner (70.6%), with an Mean age of 39.6 years (SD=8.3), and an Mean monthly income of R\$9,045,000 (SD=4,416.17). (Table 1).

Regarding the professional variables, there was a predominance of nursing assistants/technicians (63.6%), almost all of whom worked in the care area (97.4%), were statutory (80.1%), and had the highest level of residency training and specialization (43.4%). It is also noteworthy that the majority reported an employment relationship (56.3%), had a day shift as a fixed schedule (53.2%), worked alternate shifts (59.7%), with an Mean of 52.0 working hours (SD=15.5), and 8.6 institutional working hours (SD=7.5). (Table 2).

Furthermore, it is noteworthy that a large proportion of the professionals worked being often/sometimes tired (92.2%), ended the shift feeling psychologically tired (87.0%), and frequently/sometimes manifested decreased concentration during the shift (62.3%). (Table 2).

Through the evaluation of Burnout syndrome, stress through WSS, and common mental disorders, it was found that the study subjects showed a high level of emotional distress (55.0%), high level of depersonalization (64.1%), high level of low professional achievement (73.2%), and 39.0% presented a high of level Burnout in the three subscales. Regarding stress, there was a similarity between the different response categories of the scale (Low Moderate and High Stress), however, 57.6% of the sample had common mental disorders. (Table 3).

In the sample, 61.5% (n=142) were exposed to violence at work in the last year, be it physical and/or verbal. The main perpetrators of violence were caregivers, patients, and other health professionals. It is noteworthy that the largest proportion of professionals who suffered violence lived with a partner (76.8% vs 60.7%, $p=0.009$) and ended their shift often/sometimes feeling psychologically tired (69.0% vs 62, 3%, $p=0.003$) as compared to those who did not suffer violence. (Table 2). Furthermore, professionals who suffered violence considered themselves stressed (50.0% vs 36.0%, $p=0.037$), and had lower Mean sleep quality when compared to professionals that were not exposed to verbal/physical aggression ($p=0.016$).

It is noteworthy to mention the fact that professionals who suffered violence had a higher proportion of emotional exhaustion/burnout,

depersonalization, a high level of low professional achievement ($p<0.0001$), and a high level of Burnout in the 3 subscales ($p<0.0001$) when compared to professionals who have not suffered violence. Likewise, there was a higher Mean score of stress at work among those professionals ($p=0.015$). (Table 3).

Furthermore, professionals who reported aggression (verbal/physical) had a higher prevalence of decreased concentration during the shift (69.0 vs 51.7%, $p=0.008$) (Table 2), and also showed a higher mean in the overall PSQI score (9.1 vs 8.1, $p=0.016$) (Table 3).

Discussion

Work-related violence represents a deliberate act against an individual or a professional, characterized by physical or psychological aggression that occurs in interpersonal relationships in the workplace, depriving workers of an essential labor right, which is the work process' safety^{2,4}, with significant impacts on workers' health and quality of work performed.

In the present study, there was a high prevalence (61.6%) of verbal/physical aggression in the last year among nursing professionals who worked in a hospitalization sector specializing in oncology, with this health problem being related to psycho-emotional changes: low sleep quality/sleep quality; high-level of burnout in all subscales (exhaustion/emotional burnout, depersonalization, and low achievement) and higher mean score on the job stress scale.

It should be noted that this reality cannot be considered an isolated event or misfortune, but a phenomenon that is structurally linked to socioeconomic, cultural, and organizational issues of work institutions¹⁻⁵. This assumption is confirmed when evaluating the proportion of aggression reported by nursing workers in the oncology sector under study, as well as in hospitals in southern Brazil (63.2%)²⁰, in the state of Rio de Janeiro (46.7%)²¹, in the city of Londrina, where 100% of nurses and 88.9% of nursing technicians reported having suffered violence²².

In the hospital institution of the present study, attention is drawn to the higher prevalence of verbal/physical aggression in nursing technicians/assistants (62.7%), which may be a reflection of the hierarchization of Brazilian nursing, in which direct patient care activities are performed primarily by these workers¹², increasing their exposure to suffering violence from com-

Table 1. Prevalence of aggressor Characteristics and sociodemographic characteristics of nursing professionals, according to the occurrence of self-reported violence. Rio de Janeiro, Brazil, 2018.

Variables	The Professional Suffered Violence						p-value
	Yes		No		Total		
	n	%	n	%	n	%	
Suffered violence	142	61,5	89	38,5	231	100,0	NS
Aggressor Characteristics							
Who was the aggressor? (n=142)							
Professionals	21	14,8	-	-	21	100,0	NS
Patients	28	19,7	-	-	28	100,0	NS
Companions	37	26,1	-	-	37	100,0	NS
Professionals and patients	9	6,3	-	-	9	100,0	NS
Professionals and companions	7	4,9	-	-	7	100,0	NS
Patients and companions	21	14,8	-	-	21	100,0	NS
Professionals, patients and companions	19	13,4	-	-	19	100,0	NS
Sociodemographic Characteristics							
Sex							
Female	119	83,8	72	80,9	191	82,7	0,570*
Male	23	16,2	17	19,1	40	17,3	
Age (in years): Mean (SD)							
20-29	17	12,0	8	9,0	25	10,8	0,820***
30-39	60	42,3	39	43,8	99	42,9	
40-49	41	28,9	29	32,6	70	30,3	
≥50	24	16,9	13	14,6	37	16,0	
Ethnicity							
Non-white	78	54,9	48	53,9	126	54,5	0,882*
White	64	45,1	41	46,1	105	45,5	
Marital status							
Without partner	33	23,2	35	39,3	68	29,4	0,009*
With partner	109	76,8	54	60,7	163	70,6	
Monthly family income (n=230): Mean (SD)							
	9.242,60		8.726,14		9.045,00		0,290**
	(4.461,65)		(4.348,09)		(4.416,17)		
1.500,00 to 3.152,00	5	3,5	5	5,7	10	4,3	0,473***
3.152,01 to 7.880,00	53	37,3	40	45,5	93	40,4	
7.880,01 to 15.760,00	69	48,6	35	39,8	104	45,2	
>15.760,00	15	10,6	8	9,1	23	10,0	

* Pearson's Chi-Square Test; ** Mann-Whitney U Test; *** Likelihood ratio; NA: Not applicable

Source: Study results.

panions and patients due to direct and continuous contact throughout the shift^{21,23}. Also, their work activities are predominantly performed by women, and are considered tasks of lesser importance due to their link to domestic work¹², increasing the chance of being disrespected by health service users and their families and suffering violence^{10,24}, due to the inequality of that permeate social relations in a patriarchal society¹⁴.

Added to the characteristics of the nursing work process, the specificities of care for cancer patients must be considered, as in these inpatient

services, patients are often physically debilitated, exhausted with treatments (surgical, chemotherapy, or radiotherapy), with pain due to the therapy or extension of the disease, or in end-of-life care. A situation that promotes a high level of stress and suffering for patients and their companions/relatives, increases the risk of the occurrence of verbal/physical aggression if their health and care needs are not met with the readiness desired by them.

In the oncology service under study, at the time of the study, there was no reported lack of material resources for nursing care, however,

Table 2. Work-related characteristics of nursing professionals, according to the occurrence of self-reported violence. Rio de Janeiro, Brazil, 2018.

Variables	Work-related variables						p-value
	The professional suffered violence						
	Yes		No		Total		
Professional category	n	%	n	%	n	%	
Nurse	53	37,3	31	34,8	84	36,4	0,702*
Nursing technicians/assistants	89	62,7	58	65,2	147	63,6	
Graduated time (in years): Mean (SD)	16,4	(8,1)	16,1	(7,4)	16,3	(7,8)	0,965**
Type of bond							
Statutory	112	78,9	73	82,0	185	80,1	0,560*
CLT	30	21,1	16	18,0	46	19,9	
Type of position							
Managerial	4	2,8	2	2,2	6	2,6	1,000****
Care	138	97,2	87	97,8	225	97,4	
Highest education level completed							
Technical level	52	36,6	26	29,2	78	33,8	0,359***
University graduate	16	11,3	17	19,1	33	14,3	
Residence/Specialization	62	43,7	38	42,7	100	43,3	
Masters	12	8,5	8	9,0	20	8,7	
Number of employment relationships							
1	81	57,0	49	55,1	130	56,3	0,490***
2	54	38,0	38	42,7	92	39,8	
3	7	4,9	2	2,2	9	3,9	
Weekly working hours: Mean (SD)	52,5	(16,4)	51,2	(14,0)	52,0	(15,5)	0,778****
Institutional working time (in years):	8,9	(7,8)	8,2	(7,0)	8,6	(7,5)	0,407**
Work scale							
Day worker	11	7,7	7	7,9	18	7,8	0,983***
Day duty	75	52,8	48	53,9	123	53,2	
Night duty	56	39,4	34	38,2	90	39,0	
Shift work							
Yes	84	59,2	54	60,7	138	59,7	0,819*
No	58	40,8	35	39,3	93	40,3	
Had an accident while working in the hospital							
Yes	76	53,5	41	46,1	117	50,6	0,270*
No	66	46,5	48	53,9	114	49,4	
Worked whilst being tired							
Frequently/sometimes	131	92,3	82	92,1	213	92,2	0,974*
Rarely	11	7,7	7	7,9	18	7,8	
End the shift feeling psychologically tired							
Frequently/sometimes	131	92,3	70	78,7	201	87,0	0,003*
Rarely/never	11	7,7	19	21,3	30	13,0	
Decreased concentration during the shift							
Frequently/sometimes	98	69,0	46	51,7	144	62,3	0,008*
Rarely/never	44	31,0	43	48,3	87	37,7	

* Pearson's Chi-Square Test; ** Mann-Whitney U Test; *** Likelihood ratio; **** Fisher's exact test.

Source: Study results.

there was a deficit of professionals, considering the highly specific and complex care that is re-

quired²⁵. These workers reported more than 50 hours of Mean weekly work, due to the high pro-

Table 3. Burnout, work-related stress and common mental disorders among nursing professionals, according to the occurrence of self-reported violence. Rio de Janeiro, Brazil, 2018.

	Burnout, job stress and common mental disorders						p-value
	The professional suffered violence						
	Yes		No		Total		
	n	%	n	%	n	%	
Exhaustion/Emotional Wear							
Low level (≤ 18)	12	8,5	8	9,0	20	8,7	<0,0001***
Moderate level (19-26)	36	25,4	48	53,9	84	36,4	
High level (≥ 27)	94	66,2	33	37,1	127	55,0	
Mean (SD)	30,1 (7,9)		26,2 (7,0)		28,6 (7,8)		<0,0001**
Depersonalization							
Low level (≤ 5)	6	4,2	10	11,2	16	6,9	0,005***
Moderate level (6-9)	34	23,9	33	37,1	67	29,0	
High level (≥ 10)	102	71,8	46	51,7	148	64,1	
Mean (SD)	12,1 (4,3)		10,2 (3,4)		11,4 (4,3)		0,002**
Low Professional Achievement							
Low level (≥ 40)	1	0,7	2	2,2	3	1,3	0,082***
Moderate level (39-34)	30	21,1	29	32,6	59	25,5	
High level (≤ 33)	111	78,2	58	65,2	169	73,2	
Mean (SD)	29,1 (5,6)		30,7 (5,1)		29,7 (5,5)		0,025**
Burnout (high level on the 3 subscales)							
Yes	69	48,6	21	23,6	90	39,0	<0,0001*
No	73	51,4	68	76,4	141	61,0	
Work Stress Scale (WSS)							
Low (23,0-58,0)	41	28,9	36	40,4	77	33,3	0,061***
Moderate (59,0-73,0)	48	33,8	32	36,0	80	34,6	
High ($\geq 74,0$)	53	37,3	21	23,6	74	32,0	
Total score: Mean (SD)	62,9 (17,5)		56,9 (17,2)		60,6 (17,6)		0,015**
Self Report Questionnaire - SRQ - 20							
Total score: Mean (SD)	8,7 (4,1)		7,7 (4,1)		8,3 (4,1)		0,072**
Common Mental Disorders							
Yes	85	59,9	48	53,9	133	57,6	0,375*
No	57	40,1	41	46,1	98	42,4	
Sleep Quality (PSQI): Mean (SD)	9,2 (3,7)		8,1 (3,4)		8,5 (3,5)		0,016**

* Pearson's Chi-Square Test; ** Mann-Whitney U Test; *** Likelihood ratio .

Source: Study results.

portion of professionals with more than one employment relationship (39.7%) and the possibility of carrying out extra shifts at the institution in order to make up for the shortage of professionals²⁵, a reality that aims to supplement their monthly family income, amplifying the wear and tear of these workers²⁵. It can generate behaviors that increase the likelihood of violence occurring due to stress, fatigue, and inattention²⁰⁻²².

In this sense, workers who suffered physical/verbal aggression reported, in greater propor-

tion, finishing the shift feeling psychologically tired, with reduced attention during the shift, with a lower Mean of sleep quality, with a higher Mean in the scale of stress at work. In addition to a higher prevalence of high levels of exhaustion/wear, depersonalization, and low professional achievement, which may be associated with the previously mentioned professional deficit, and the characteristics of the clientele assisted with sudden changes in the clinical condition, oncological emergencies, and, in addition to death

and grief often experienced by these workers²⁶⁻²⁷. These psycho-emotional changes can result in failures in care, motivating aggressive reactions from both patients, their companions, or even members of the team itself²⁸⁻³⁹.

The design of this cross-sectional study does not allow us to identify whether these psycho-emotional changes emerged after the episode of aggression or whether their existence increased the risk of violence at work. However, it is known that the presence of violence generates dissatisfaction at work²⁰ and a feeling of professional devaluation⁶, which in turn causes irritability in workers, interferes with the quality of care provided and patient safety, increasing the risk of these workers suffering physical or verbal violence²⁰, feeding back the cycle of violence at work.

The high prevalence of verbal/physical aggression observed in nursing workers deserves great attention from the management of the hospital under study, since even though it was not the focus of this work, studies have shown that Post Traumatic Stress Disorder (PTSD) is the most common mental health problem after experiencing a traumatic event in the workplace³⁹. A review study found that 10 to 18% of professional victims of violence at work will develop symptoms that meet the PTSD criteria. In addition, these workers have a higher risk of using antidepressants and anxiolytics (RR=1.45; 95%CI 1.01-2.33)⁴⁰. The presence of PTSD as a result of an accident at work has been related to absenteeism and can impact the relationship of this professional with the health team and with patients due to the greater probability of irritation, difficulties in concentration, and communication³⁹⁻⁴⁰.

However, despite the great magnitude and transcendence of this public health problem, it is still neglected by managers⁸, as they believe that verbal aggression is part of health work, given the fragility of patients and the inability of the health system and services to attend to health needs, with health professionals being the representatives of the state in which users and their families

will present all their discontent for not having their right to guaranteed health^{6,20,41}.

It is also important to highlight that, although this study is a situational study, which did not use a standardized scale for the assessment of violence, in addition to not discriminating the type of violence suffered, it has its importance in giving visibility to the violence experienced by nursing professionals who work in oncology, highlighting its high prevalence and impacts on their mental health.

Conclusion

It was evident that the nursing professionals of a High Complexity Center in Oncology, in the state of Rio de Janeiro, who made up the sample of this study, presented a high level of prevalence of self-reported violence, perpetrated mostly by caregivers and patients. Thus, this study reveals a violent face in which nursing professionals, whose work activity is of great importance, are exposed daily.

Furthermore, nursing professionals who reported having suffered violence had a higher level of emotional exhaustion, depersonalization, burnout, in addition to a higher mean of low professional achievement, occupational stress, and poor sleep quality. Therefore, the phenomenon of violence at work has a negative impact on the health of these professionals and, consequently, on the performance of their professional activities, which may lead to a decrease in the quality of care provided and patient safety.

This study points to the urgency of institutional demands aimed at protecting nursing professionals in their work environments, which must necessarily go through the education of caregivers and patients and, above all, professional development. In addition, it was the first Brazilian study to assess occupational violence in nursing workers who work in inpatient units specializing in cancer patient care.

Collaborations

J Santos and AMG Pierin participated in the design, study design, article writing, its critical review and approval of the review to be published. KC Meira participated in the design, study design, analysis and interpretation data, writing of the article, its critical review and approval of the version to be published. JC Rabbit, ESO Dantas, LV Oliveira, JSA Oliveira and SGP Almeida participated in the writing of the article or its critical review, and approval of the version to be published.

References

1. Minayo MCS, organizadora. *Os muitos Brasis: saúde e população na década de 80*. São Paulo: Hucitec; Rio de Janeiro: Abrasco; 1995.
2. Oliveira RP, Nunes MO. Violência relacionada ao trabalho: uma proposta conceitual. *Saude Soc* 2008; 17(4):22-34.
3. Brasil. Ministério da Saúde (MS). Secretaria de Políticas de Saúde. Política nacional de redução da morbimortalidade por acidentes e violência. Informes Técnicos Institucionais. *Rev Saude Publica* 2000; 34(4): 427-430.
4. Chauí M. Ética e violência. *Teoria Debate* 1998; 11(39):32-41.
5. Campos AS. *A violência como objeto para a saúde do trabalhador: agressões contra trabalhadores das unidades básicas de saúde do distrito sanitário norte de Belo Horizonte* [dissertação]. Belo Horizonte: Universidade Federal de Minas Gerais; 2004.
6. World Health Organization (CH); International Labour Office; International Council of Nurses; Public Services International. *Framework guidelines for addressing - Workplace violence in the health sector: the training manual* [Internet]. Geneva(CH); 2005.
7. Oliveira CM, Fontana RT. Violência Psicológica: Um fator de risco e de desumanização ao trabalho da enfermagem. *Cienc Cuid Saude* 2012; 11(2):243-249.
8. Lima DM, Santos DF, Oliveira FN, Lopes APAF, Passos JP. Violência Psicológica Institucional no Trabalho de Enfermagem. *R Pesq Cuid Fundam* 2012; (Supl.):17-20.
9. Campos AS, Pierantoni CR. Violencia no trabalho em saude:um tema para a cooperacao internacional em recursos humanos para a saude. *Rev Eletron Comun Inf Inov Saude* 2010; 4(1):86-92.
10. Silva IV, Aquino EML, Pinto ICM. Violência no trabalho em saúde: a experiência de servidores estaduais da saúde no Estado da Bahia, Brasil. *Cad Saude Publica* 2014; 30(10):2112-2122.
11. Oliveira Ane R, D'Oliveira Ana Flávia P L. Gender-violence against the female nursing staff of a Brazilian hospital in São Paulo City. *Rev Saude Publica* 2008; 42(5):868-876.
12. Velloso ISC, Ceci C, Alves M. Reflexões sobre relações de poder na prática de enfermagem. *Rev Gaucha Enferm* 2010; 31(2):388-391.
13. Edward K, Ouse K, Warelow P, Lui S. Nursing and aggression in the workplace: a systematic review. *Br J Nursing* 2014; 23(12):65-70.
14. Rodrigues PF, Alvaro ALT, Rondina R. Sofrimento no trabalho na visão de Dejours. *Revista Científica Eletrônica de Psicologia* 2006; 1(7):9-17.
15. Paschoal T, Tamayo A. Validação da Escala de Estresse no Trabalho. *Estudos de Psicologia* 2004; 9(1):45-52.
16. Andolhe R. *Segurança do paciente em unidade de terapia intensiva: estresse, coping e burnout da equipe de enfermagem e ocorrência de eventos adversos e incidentes* [tese]. São Paulo: Escola de Enfermagem da Universidade de São Paulo; 2013.
17. Carlotto MS, Câmara SG. Análise fatorial do Maslach Burnout Inventory (MBI) em uma amostra de professores de instituições particulares. *Psicologia em Estudo* 2004; 9(3):499-505.
18. Maslach C, Jackson S, Leiter M. *The Maslach Burnout Inventory - Test Manual*. Palo Alto, Califórnia: Consulting Psychologist Press; 1986.
19. Backhaus J, Junghanns K, Broocks A, Riemann D, Hohagen F. Test-retest reliability and validity of the Pittsburgh Sleep Quality Index in primary insomnia. *J Psychosomatic Res* 2002; 53(3):737-740

20. Pai DD, Lautert L, Souza SBC, Marziale MHP, Tavares JP. Violence, burnout and minor psychiatric disorders in hospital work. *Rev Esc Enferm USP* 2015; 49(3):460-468.
21. Di Martino V. *Relationship between work stress and workplace violence in the health sector*. Geneva; 2003.
22. Cezar ES, Marziale MHP. Occupational violence problems in an emergency hospital in Londrina, Paraná, Brazil. *Cad Saude Publica* 2006; 22(1):217-221.
23. Park M, Cho S, Hong H. Prevalence and Perpetrators of Workplace Violence by Nursing Unit and the Relationship Between Violence and the Perceived Work Environment. *J Nurs Scholarship* 2015; 47:1, 87-95.
24. Machado MH, Santo MR, Oliveira E, Wermelinger M, Vieira M, Lemos MV, Lacerda WF, Aguiar-Filho W, Souza-Junior PB, Justino E, Barbosa C. Condições de trabalho da enfermagem. *Enferm Foco* 2016; 7(n. esp.):63-76.
25. Santos J. *Risco cardiovascular e carga alostática em profissionais de enfermagem que atuam em oncologia: variáveis biopsicoemocionais e relacionadas ao trabalho [tese]*. São Paulo: Escola de Enfermagem da Universidade de São Paulo; 2016.
26. Santos NAR, Santos J, Silva VE, Passos JP. Occupational stress in palliative care in oncology. *Cogitare Enferm* 2017; 22(4):e50686.
27. Ayala ALM, Felicio ACR, Pachão J. Sofrimento dos profissionais que atuam no setor de oncologia em um hospital público de Joinville. *Rev Aten Saude* 2017;15(51):106-117.
28. Campos AS, Pierantoni CR. Violence in the health care workplace: a theme for international cooperation in human resources in the health sector. *Rev Eletrônica Com Inf Inov Saude* 2010; 4(1):79-85.
29. Bigham BL. Paramedic self-report exposure to violence the emergency medical services (EMS) workplace: a mixed-methods cross-sectional survey. *Prehospital Emergency Care* 2014; 18(4):489-494.
30. Bernaldo QM, Labrador F J, Piccini AT, Gómez MM, Cerdeira JC. Violencia laboral en urgencias extrahospitalarias: una revisión sistemática y líneas de intervención psicológica. *Clínica y Salud* 2014; 25(1):11-18.
31. Edward KL, Ousey K, Warelow P, Lui S. Nursing and aggression in the workplace: a systematic review. *Br J Nurs* 2014; 23(12):653-654.
32. Spector PE, Zhou ZE, Che XX. Nurse exposure to physical and nonphysical violence, bullying, and sexual harassment: A quantitative review. *Int J Nurs Stud* 2014; 51(1):72-84.
33. Speroni KG, Fitch T, Dawson E, Dugan L, Atherton M, Leesburg VA. Incidence and cost of nurse workplace violence perpetrated by hospital patients or patient visitors. *J Emerg Nurs* 2014; 40(3):218-228.
34. Wei C, Chiou S, Chien L, Huang N. Workplace violence against nurses – Prevalence and association with hospital organizational characteristics and health-promotion efforts: Cross-sectional study. *Intern J Nurs Studies* 2016; (56):63-70.
35. Jafree SR. Workplace violence against women nurses working in two public sector hospitals of Lahore, Pakistan. *Nurs Outlook* 2017; 65(4):420-427.
36. Zampieron A, Caleazzo M, Turra S, Buja A. Perceived aggression towards nurses: study in two Italian health Institutions. *J Clin Nurs* 2010; 19(15-16): 2329-2341.
37. Vasconcellos IRR, Griep RR, Lisboa MTL, Rotenberg L. Violência no cotidiano de trabalho de enfermagem hospitalar. *Acta Paul Enferm* 2012; 25(n. esp. 2):40-47.
38. Schaefer LS, Lobo BOM, Kristensen CH. Transtorno de estresse pós-traumático decorrente de acidente de trabalho: implicações psicológicas, socioeconômicas e jurídicas. *Estudos de Psicologia* 2012; 17(2):329-336.
39. Dement JM1, Lipscomb HJ, Schoenfisch AL, Pompeii LA. Impact of hospital type II violent events: use of psychotropic drugs and mental health services. *Am J Ind Med* 2014;57(6):627-639.
40. Souza AAM, Costa WA, Gurgel A, Cunha AK. Aspectos Relacionados à Ocorrência de Violência Ocupacional nos Setores de Urgência de um Hospital. *J Res Fundam Care* 2014; 6(2):637-650.

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