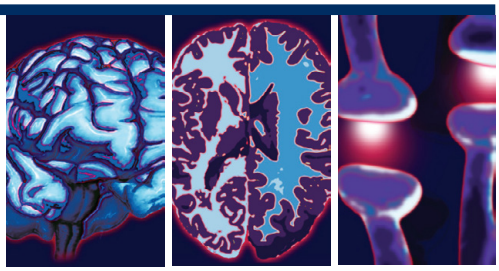
Research Article



Exposure to User Violence, Job Satisfaction, and Burnout in Nurses: Comparison of Mental Health with Other Health Areas

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ABSTRACT

The risk of workplace violence is particularly important in the health sector, and the collective of mental health nurses is one of the most affected.

The goals of this study are to determine the differences in frequency and type of exposure to user violence towards mental health nurses compared with other areas of nursing, as well as the relationship between exposure to violence and workers' level of burnout and satisfaction.

This is a cross-sectional descriptive study, based on a self-applied and anonymous questionnaire that assessed exposure to user violence with the HABS-U (Hospital Aggressive Behaviour Scale-Users), the level of burnout with the Maslach Burnout Inventory-GS (MSI-GS) and job satisfaction with the Overall Job Satisfaction (OJS) scale in the nursing staff of hospitals, Primary Care, and mental health, for which a random sampling, stratified by centers and services, was performed, finally obtaining a sample size of 819 subjects.

The main results reveal that mental health nurses are more frequently exposed to expressions of physical and non-physical violence than nurses from the rest of the studied areas, and the most common violent behavior in mental health is patients' anger due to their questioning the professionals' decisions. A higher level of satisfaction was detected among mental health nurses than in other areas, and there was a lack of correlation between exposure to violence and these workers' level of cynicism. Therefore, we can conclude that, although mental health workers are exposed to more violence, its psychological influence seems to be lower.

Keywords

Occupational health, Workplace violence, Hospital Nursing Service, Job satisfaction, Burnout syndrome

Introduction

■ Definition and frequency of exposure to workplace violence

There is a standardized definition of workplace violence, although one of the most widely used ones internationally described it as an "act involving physical violence such as slaps, punches, kicks and bites, the use of an object as a weapon, aggressive behavior, such as spitting, scratching, and pinching, or a verbal threat that involves no physical contact" [1].

In the services sector, professionals are under a greater risk of assault or violent acts by citizens due to the close contact they have with them [2]. Within this context, the health sector holds a

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special place, although it is difficult to provide a figure of exposure frequency [3-5]. A recent review of studies on violence reported that up to 75% of the respondents in clinical practice had experienced verbal aggression in the last 6-24 months [6]. There is a consensus that the nursing staff is one of the occupational groups with the highest incidence of assaults within the field of health [3-5,7,8].

Within the nursing staff, mental health workers appear to be particularly vulnerable to acts of aggression [9,10] and some studies such as that of Itzhaki et al. [11] indicate that 88.1% of mental health nurses had received verbal assaults in the past year, and 58.4% had experienced some kind of physical violence during the same period. In this sense, Waschgler et al. [12] classified the risk factors that could be increasing the risk of exposure to violence, describing among others: (a) individual patient factors, which included their mental state and psychopathology; (b) factors depending on the nursing staff, such as their level of burnout; (c) environmental or organizational factors, such as the type of service; (d) factors related to treatment, such as physical restraint; and (e) factors that depend on the interaction among the protagonists.

■ Consequences of exposure to violence in Mental health

In mental health, this risk has been considered important because of the real and potential physical and psychological damage that such exposure can cause [13]. Among the potential psychological outcomes of exposure to user violence are: decreased job satisfaction, deterioration of psychological well-being, the emergence of the burnout syndrome, or the development of reactive anxious-depressive psychopathological disorders [5,14,15]. However, other studies focusing on mental health staff, such as that of Itzhaki et al. [11], indicate that these professionals' satisfaction with life is less affected by exposure to verbal and physical violence.

■ Hypotheses and goal of the work

According to the reviewed literature, in this work, we have two working hypotheses: exposure to violence may be higher among nurses working in mental health than among nurses in the rest of the areas, but the psychological influence of this exposure may be lower in the former than the rest of the areas. On the basis of these two hypotheses, we proposed two goals. The first is to study the differences between the frequency and type of exposure to user violence in mental health nurses compared with hospital nurses and Primary Care nurses. Secondly, we shall examine the differences in the relationship between exposure to violence, level of burnout, and job satisfaction among nurses in the various areas of care that make up the sample.

Methods

■ Design and participants

This is a cross-sectional descriptive study carried out among nurses in public hospitals, health centers, and mental health centers in the Region of Murcia (south-east of Spain).

The sampling was randomized and stratified according to the size of the centers. The design of the sampling considered a confidence level of 95% and a 3% margin of error. To make the groups comparable, the questionnaire was delivered to 30% of the nursing staff of 3 hospitals nurses and to one half of the nurses of Primary Care and of the centers and services that attend to mental health patients.

The sample is made up of 819 nurses. The majority are women (81.45% vs. 18.55%, for women and men, respectively), married or living with a common-law partner (68.5%). Of the sample, 67.74% had a permanent contract, and 72.41% carried out continuous training **(Table 1).**

■ Procedure

To obtain the sample, we informed the nursing directors/coordinators of the different centers about the study in detail, and once they had agreed to participate in the research, they received instructions to deliver the questionnaire to their workers. After the anonymous questionnaires had been filled in by the workers, they were collected in a sealed envelope. Later, visits to the centers were scheduled to clarify possible doubts and to collect the completed protocols. Participation was voluntary, ensuring strict confidentiality and anonymity of the data collected. This study was approved by the Committee of Research Ethics of the University of Murcia and by the coordinators of the participant Health Areas

■ Instruments

The instrument used to evaluate exposure to violence was the HABS-U (Hospital Aggressive Behaviour Scale-Users) [12], subsequently

Table 1: Sociodemographic and job characteristics of the sample.

Area		Hospital Care		Primary Care		Mental Health	
Variables		n	(%)	n	(%)	n	(%)
Sex							
	Male	73	(15.1)	55	(26.7)	23	(18.7)
	Female	412	(84.1)	151	(73.3)	100	(81.3)
Marital status							
	Single	151	(30.9)	27	(13.2)	37	(30.3)
	Common law couple/married	334	(68.3)	149	(72.7)	76	(62.3)
	Divorced, separated/ widowed	4	(0.8)	29	(14.1)	9	(7.4)
Type of contract							
	Permanent	270	(59)	176	(87.1)	84	(68.9)
	Temporary	188	(41)	26	(12.9)	38	(31.1)
Continued training							
	Yes	340	(71.4)	161	(78.9)	79	(65.3)
	No	136	(28.6)	43	(21.1)	42	(34.7)
Other occupational activity							
	Yes	30	(6.2)	17	(8.3)	3	(2.4)
	No	454	(93.8)	188	(91.7)	120	(97.6)

adapted for Primary Care and mental health [16]. This scale measures users' low-level, hostile, non-physical and physical expressions perceived by the worker as violent. The questionnaire has 10 items, with a Cronbach alpha of 0.83, explaining 57.36% of the variance. It is divided into two factors: Non-physical violence with 7 items (α=0.85, explaining 36.39% of the variance, with a factor loading of 0.63 – 0.75); and Physical violence with 3 items (α=0.75, explaining 20.96% of the variance, with a factor loading of 0.71 – 0.78). To appraise frequency of exposure, a 6-point Likert-type scale, ranging from 1 (never in the past year) to 6 (daily) was used [12].

To assess the level of satisfaction, we used the Overall Job Satisfaction (OJS) scale developed by Warr et al. [17], adapted to Spanish by Pérez and Fidalgo. This scale has 15 items, which are rated on a 7-point Likert-type scale, ranging from 0 (very dissatisfied) to 6 (very satisfied). The OJS is divided into two subscales: Intrinsic factors subscale, which is made up of 7 items, and the Extrinsic factors subscale, made up of 8 items. Regarding the internal consistency of the questionnaire in Spanish, the Cronbach alpha index was 0.88, the Extrinsic factors subscale had a reliability of 0.72, and the Intrinsic factors subscale of 0.85 [18].

To analyze levels of burnout, we used the Maslach Burnout Inventory-GS (MSI-GS) [19], translated and validated in Spanish by Gil Monte [20]. The MBI-GS has 16 items, divided into three subscales: Professional efficacy (6 items), Emotional exhaustion (5 items), and Cynicism (5 items). Participants rate the frequency with which they have experienced each item of the questionnaire on a 7-point Likert-type scale ranging from 0 (never) to 6 (daily). The reliability values of the scales according to the Cronbach alphas in the study of Gil Monte were 0.85 for Professional efficacy, 0.83 for Emotional exhaustion, and 0.74 for Cynicism.

Along with these instruments, we recorded a series of sociodemographic (sex, age, and marital status) and work variables, such as: type of center, type of service, profession, type of contract, shift, whether they performed continuous training, whether they performed other jobs or worked overtime.

■ Statistical analysis

We examined the distribution of the sample, examining the response percentages according to sociodemographic and work variables. Subsequently, we calculated the mean score in each of the items of the violence scale (HABS-U), as well as the level of exposure to violence, satisfaction (OJS), and burnout (MSI-GS) as a function of type of care, using ANOVA to compare the means and Tukey's post hoc test to establish the different groups. Pearson correlations were calculated to assess the relationship between exposure to violence and the presence of burnout and job dissatisfaction.

Results

Table 1 shows that the proportion of males was slightly higher in Primary Care (26.7% in Primary Care vs. 18.7% in mental health vs. 15.1% in hospital care). The highest proportion of indefinite contracts was found in Primary Care (87.1%), and the highest number of temporary workers was found in hospitals (59% had an indefinite contract). With regard to continued training, we note that mental health had the highest proportion of workers who do not perform continued training (34.7%). Finally, we observed that there were more Primary Care nurses who had another job besides their habitual employment (8.3%) compared to mental health nurses (2.4%).

We detected higher scores in the expressions of non-physical violence than in the items of physical violence in all the areas. The mean score of all the questions was higher in mental health (C) (Table 2). In hospital care (A) and Primary Care (B), the highest mean scores were obtained for the item "Anger due to health care delay" (M_A=2.37, M_B=2.29), and the item with the lowest score was "Destruction of doors and windows" (M_A=1.08, M_B=1.04). In mental health, the highest score was obtained by the item "They question my decisions" (M_C=3.35), and the lowest score by "Destruction of doors and windows" (M_C=1.81) (Table 2).

When performing the ANOVA, with the work area as the independent variable and each of the items of the violence scale (HABS-U) as dependent variables, we found that the mean score for each of the items was significantly higher for mental health than for the rest of the areas (Primary Care and Hospital Care). Using Tukey's post hoc test, we detected that Hospital and Primary Care obtained similar and significantly lower means than mental health in the items: AB-C in "Ironic jokes", F(2, 804)=18.63, p<0.001; "Exaggerated anger due to trivial details", F(2,803)=17.26, p<0.001; and "Unjustified accusations", F(2, 801)=31.43, p<0.001; and BA-C in "Anger due to health care delay", F(2, 805)=3.90, p <0.05; "Frowns and dirty looks", F(2, 804)=17.39, p<0.001; "Anger due to lack of information", F(2, 807) =11.71, p<0.001; and the items of physical violence. The item "They question my decisions", F(2, 801)=61.12, where three different subsets were formed (A-B-C) (Table 2).

Following the same statistical analysis with the scores obtained on the scales of violence (HABS-U), job satisfaction (OJS), and burnout (MSI-GS), we observed that the mean violence score was significantly higher in mental health than in Hospital and Primary Care (M_C=24.21, SD_C=11.72; M_A=16.20, SD_A=7.09; M_B=16.60, SD_B=6.70) with p<0.001. The same result was observed for job satisfaction, where the score was significantly higher in Mental health (M_C=66.97, SD_C=16.06; M_A=56.17, SD_A=13.13; M_B=57.34, SD_B=12.86) with p<0.001. However, this did not occur with the components of burnout. The levels of Emotional Exhaustion and Cynicism in mental health were similar to those of Hospital and Primary Care, and no significant differences were found in the level of Cynicism among the three areas (M_A=11.37, SD_A=4.97; M_B=11.59, SD_B=4.69; M_C=10.56 SD_C=4.84), nor did Tukey's post hoc test differentiate the groups in Emotional Exhaustion (M_A=12.94, SD_A=5.03; M_B=11.59, SD_B=4.69; M_C=13.55 SD_C=5.04). In Professional efficacy, there were two significantly

Table 2: Mean scores of violence scale items as a function of area.

	Hospital Care (A)		Primary Care (B)		Mental Health (C)			
	Mean (SD)	95% CI	Mean (SD)	95% CI	Mean (SD)	95% CI	F (df1, df2)	Tukey
Non-physical violence								
Anger due to healthcare delay	2.37 (1.59)	2.23-2.52	2.29 (1.45)	2.09-2.49	2.77 (1.72)	2.46-3.08	3.90 (2.805)*	BA-C
Dirty or contemptuous looks	1.76 (1.21)	1.65-1.87	1.71 (1.13)	1.55-1.86	2.46 (1.54)	2.19-2.74	17.39(2.804)***	BA-C
Questions my decisions	1.8 (1.28)	1.69-1.91	2.17 (1.33)	1.98-2.35	3.35 (1.87)	3.02-3.68	61.12 (2.801)***	A-B-C
Ironic jokes	1.76 (1.20)	1.65-1.86	1.84 (1.29)	1.66-2.02	2.54 (1.56)	2.26-2.82	18.63 (2.804)***	AB-C
Angry at the lack of information	1.86 (1.35)	1.73-1.98	1.59 (1.07)	1.44-1.74	2.32 (1.51)	2.05-2.59	11.71 (2.807)***	BA-C
Exaggerated anger for trifles	1.82 (1.28)	1.71-1.94	2.05 (1.42)	1.85-2.25	2.63 (1.64)	2.34-2.93	17.26 (2.803)***	AB-C
Unjustified accusations	1.56 (1.06)	1.46-1.66	1.63 (1.05)	1.49-1.78	2.5 (1.73)	2.19-2.81	31.43 (2.801)***	AB-C
Physical violence								
Grasping hostilely	1.18 (0.570)	1.13-1.23	1.15 (0.535)	1.07-1.22	1.92 (1.33)	1.68-2.16	54.74 (2.805)***	BA-C
Pushing, shaking…	1.11 (0.452)	1.07-1.15	1.05 (0.335)	1.01-1.10	1.90 (1.28)	1.67-2.13	84.79 (2.805)***	BA-C
Destruction of doors, windows …	1.08 (0.411)	1.05-1.12	1.04 (0.206)	1.02-1.07	1.81 (1.30)	1.58-2.05	77.50 (2.807)***	BA-C

Note: M=mean, SD=standard deviation, CI: confidence interval, Tukey (post-hoc test).*p<0.05. **p<0.01. ***p<0.001

different groups, as hospital care obtained a significantly lower score than Primary Care and mental health (p<0.001) (Table 3).

We calculated the correlation between exposure to violence and the levels of satisfaction and burnout, as a function of the different work areas. We detected that, in all three work areas, exposure to violence correlated significantly and negatively with Satisfaction (r_A=-0.12, p <0.01; r_B=-0.29, p<0.001; r_C=-0.35, p<0.001), and positively with Emotional exhaustion (r_A=0.31, p <0.001; r_B=0.39, p <0.001; r_C=0.26, p <0.01). In contrast, Cynicism correlated with violence in hospital care and Primary Care (r_A=0.32, p <0.001; r_B=0.16, p<0.05) but not in mental health (Table 4).

To better understand the interpretation of these results, we graphically represented the correlations between scores on Emotional exhaustion and violence as a function of the level of Satisfaction in mental health and the rest of the work areas. For this purpose, we used terciles (T) as a reference; such that a high value in the variable corresponds to scores in T3, a low value is in T1, while T2 values were discarded. In Figure 1, it can be seen that, in hospital nurses and Primary Care nurses with high scores in satisfaction, exposure to violence correlated significantly with the level of Emotional exhaustion but this correlation was nonsignificant in mental health nurses.

Discussion

The present study highlights that the score on the violence scale—both physical and non-physical expressions—among mental health nurses of the Region of Murcia is higher than that of hospital nurses and Primary Care nurses. This group's increased frequency of exposure to violence tends to be associated with the type of patient who is attended to in these units [21]. This has led some authors to focus on patients' psychopathological symptoms, such as delusions or hallucinations, as risk factors for violence. However, Dack et al. [22] warned that, although there is evidence that the patients' characteristics contribute to the emergence of violence, their effect is small, so the study of these features may have limited usefulness to predict or prevent

Figure 1: Correlation between exposure to violence and emotional exhaustion according to level of satisfaction and area.

Table 3: Mean score on violence, satisfaction, and burnout scales as a function of area.

	Hospital Care (A)		Primary Care (B)		Mental Health (C)			
	Mean (SD)	95% CI	Mean (SD)	95% CI	Mean (SD)	95% CI	F (df1, df2)	Tukey
Total violence	16.20(7.09)	15.56-16.83	16.60(6.70)	15.65-17.56	24.21(11.72)	22.12-26.31	52.00(2.788)***	AB-C
Total satisfaction	56.177(13.13)	55.01-57.34	57.34(12.86)	55.38-59.30	66.975(16.06)	64.09-69.85	31.24(2.777)***	AB-C
Emotional exhaustion	14.02(5.04)	13.57-14.46	12.94(5.03)	12.24-13.64	13.55(5.43)	12.58-14.53	3.20(2.807)*	BCA
Professional efficacy	23.63(9.70)	22.77-24.50	33.26(4.93)	32.56-33.95	31.59(5.59)	30.58-32.59	115.79(2.799)***	A-CB
Cynicism	11.37(4.97)	10.93-11.82	11.59(4.69)	10.92-12.26	10.56(4.84)	9.69-11.434	1.79(2.799)	

Note: M=mean, SD=standard deviation, CI: confidence interval, Tukey (post-hoc test).*p<0.05. **p<0.01. ***p<0.001

Table 4: Correlation between exposure to violence and level of satisfaction and Burnout as a function of area

	Hospital Care	Primary Care	Mental Health
	Total Violence	Total Violence	Total Violence
Total satisfaction	-0.12**	-0.29***	-0.35***
Emotional exhaustion	0.31***	0.39***	0.26**
Professional efficacy	0.01	-0.19**	-0.19*
Cynicism	0.32***	0.16*	0.16

*p<0.05. **p < 0.01. ***p<0.001

violence. We must bear in mind that the quality of the interactions of the nursing staff with patients, and of patients with each, other has strong implications for the patient's well-being and the propensity toward violence [23]. In this sense, some authors recommend to direct efforts not so much to the identification of the aggressive patient but to the improvement of the interactions between the professional and the patient, through training [24].

As indicated, the expressions of non-physical violence are more frequent than those of physical violence. The item of this scale with the highest score in mental health was the patients' anger because of "Questioning the professional's decisions" and "Exaggerated anger due to trivial details". Both factors may also be associated with the fact that, in many cases, the care of these patients takes place against their will. It should be borne in mind that violence exerted by mentally ill patients outside of the hospital is low and comparable to that of the general population, but it increases when suffering a decompensation of their illness, which is when these patients are admitted to psychiatric units, where they are frequently attended to at the request of third parties [25]. This risk factor is not modifiable but, as indicated by Mills and Rose [26], when the levels of defiant behaviors cannot be reduced, interventions should focus on the staff. Therefore, the implementation of programs that help workers to deal with these situations, which include training activities based on primary, secondary and tertiary prevention, are recommended [27].

When comparing the results obtained on the scale of job satisfaction with the average scores provided by the authors of the scale [17], we find that the scores in all three areas were lower than those averages. This is coherent with diverse articles and studies of nurses, like that of the American Association of Critical Care Nurses [28], reporting high levels of job dissatisfaction and of leaving the profession in professional nurses. When comparing the scores obtained in mental health nurses with those of the other two areas, we observe that intrinsic and extrinsic job satisfaction in the mental health nurses is significantly higher than in the hospital and Primary Care nurses. Although Itzhaki et al. [11] studied life satisfaction and we studied job satisfaction, we think that the same pattern may be repeated, such that, although mental health nurses are more frequently exposed to violence, their satisfaction is less affected by such violence [29]. This may be because employees who choose to work in an environment where they constantly face stressful situations have more appropriate coping skills and also due to their belief that being a mental health nurse is gratifying because they can work with vulnerable people [30].

We found that the levels of cynicism and emotional exhaustion in mental health nurses were similar to those of the nurses of Primary Care and hospital care, despite being more exposed to violence. This could be related to the findings of studies like that of Gerberich et al. [31], who reported that 40% of mental health workers perceived the violence they experienced as an inevitable part of their work, and therefore, it did not affect them so much personally. But it should be borne in mind that, in Primary Care and hospital care, the level of cynicism and emotional exhaustion correlated positively with exposure to violence, in consistency with our expectations [26,32,33] whereas in mental health, where there is higher job satisfaction, exposure to violence did not correlate with cynicism and it ceased to correlate with emotional exhaustion when selecting workers with a high level of satisfaction. Galián-Muñoz et al. [34] detected that satisfaction, especially extrinsic satisfaction, protected the psychological health of workers exposed to non-physical violence, such that, although they might suffer some user aggression, if they were satisfied with their work, it was more difficult for them to experience burnout. Hence, the results could be due to the workers' greater satisfaction, such that if mental health workers' satisfaction decreased, they might suffer burnout if they were exposed to violence.

We note that there is a negative correlation between exposure to violence and the level of satisfaction, and a direct correlation with emotional exhaustion. To this is added the risk of physical injury in workers due to exposure to physical user violence, which does not disappear. Therefore, and in line with the results of Björkdahl et al. [27], we will continue to recommend primary, secondary, and tertiary risk prevention. Therefore, a first step should be to establish preventive measures to reduce users' defiant behavior through programs for the professionals that include early detection and training in adequate ways to interact with the patient. In these cases, the use of violence scales like the HABS-U [12] would allow us to detect the areas with greater exposure to risk, and it would also allow us to measure the effectiveness of educational interventions or trainings carried out, as recommended by Hal-

lett et al. [35]. On a second level, interventions should focus on the staff to combat the effects of stress, increasing employee satisfaction with the organization in order to reduce the psychological effects of exposure to violence, because, as Faragher et al. [36] showed in their study, increasing workers' job satisfaction improves their psychological well-being, but if well-being decreases the risk of burnout increases.

The present study presents some limitations that should be considered when interpreting the results. On the one hand, data were collected through a retrospective and self-applied questionnaire, so its reliability depends on the participants' recall of the events. On the other hand, the use of self-applied questionnaires always implies the risk of a potential self-selection bias, which, in our case, was offset by an adequate randomization in the selection of participants. On another hand, we note that situations involving interpersonal conflict—which are the ones studied herein—are often influenced by subjectivity, which could have affected the equanimity of the responses. However, in all cases, we emphasized the confidentiality of the data and respect for the anonymity of the questionnaires in order to favor the participants' sincerity.

Based on the obtained results, we propose interventional studies to increase workers' satisfaction or to address the study of aggression with other variables related to the way professionals interact with the patients, or workers' personal variables, such as empathy and resilience.

Relevance for Clinical Practice

The result of the study is eminently applied and aims to improve the protocols for primary prevention of workplace violence in health institutions and to establish specific criteria for early detection of the affected persons, as well to reduce the incidence of assaults in the national health sector in general and, specifically, in mental health. Given the difficulty of achieving a zero level of exposure, primary prevention should be accompanied by actions aimed at secondary prevention to decrease the psychological consequences of violence for the worker. Such secondary prevention is essential both for the worker and for the company, as the psychological consequences of exposure to workplace violence are often associated with substance abuse, increased absenteeism, or even leaving the profession, all of which could be avoided with measures aimed at increasing workers' job satisfaction.

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