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Research Article

BURNOUT AMONG NURSING STAFF AT THE ZIGUINCHOR PEACE HOSPITAL IN SENEGAL

[1]Marc Anibo Manga, [2,] *BocarBaïlaDiédhiou, [3]Mbayang Ndiaye, [2]Mor Ndiaye

[1]Emergency reception service, Ziguinchor peace hospital
[2]Department of Occupational Medicine and Forensic Medicine, FMPO/UCAD, Senegal.
[3]Psychiatry Department of the Military Hospital of Ouakam, Dakar, Senegal.

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ABSTRACT

Objective: to assess the epidemiology of burnout among caregivers at the Ziguinchor Peace Hospital. **Method:** This was a cross-sectional, descriptive and analytical study, carried out from December 1, 2019 to January 31, 2020. The "Maslach Burnout Inventory" was used to assess burnout. **Results:** A total of 97 caregivers were included. The average age was 38.3 years. Professional experience was greater than or equal to 5 years in 57.7% of cases. The prevalence of burnout was 52.6%, 42.3% had a high level of emotional exhaustion, 21.6% had a high level of depersonalization and 2.1% had a low level of professional accomplishment. Emotional exhaustion was statistically correlated with occupation and service ($p<0.05$). **Conclusion:** The development of a prevention strategy including the improvement of working conditions, the organization of work, is essential to limit burn out.

Keywords: burn-out, nursing staff, hospital, Senegal.

INTRODUCTION

Maslach [1] defines burnout as "a syndrome of emotional exhaustion, depersonalization and reduction of personal accomplishment that appears in individuals involved professionally with others". It revolves around three elements: emotional exhaustion (EE) or psychological fatigue, characterized by a feeling of depression that makes you irritable and whose physical consequences are non-specific somatic disorders; depersonalization (DP) or loss of interest in patients seen as impersonal objects and diminished personal accomplishment (PA), experienced as a sense of personal failure. It can affect all sectors of activity, particularly lawyers, teachers and the medical professions [2]. In our African context, the constant increase in the demand for care in the health sector contrasts with a quantitative and qualitative deficit in human resources. The precariousness of the working conditions, the insufficiency of the technical platform, the overload of work, the daily confrontation of the caregivers with the suffering, the absence of valorization and recognition, come to reinforce the constraints mentioned above [3]. His increases stress and diminishes caregivers' sense of accomplishment. The objective of this study was to evaluate the epidemiology of burnout among caregivers of the Peace Hospital of Ziguinchor in the southwestern part of Senegal.

METHODS

The study took place at the Peace Hospital in Ziguinchor in the southwestern part of Senegal. It is a level II public health establishment according to the health pyramid of Senegal. It represents with the regional hospital of Ziguinchor, the two health structures of reference at the level of the region of Ziguinchor. This was a cross-sectional, descriptive and analytical study, carried out from December 1, 2019 to January 31, 2020. Health personnel constituted the study population. Professionals working in the hospital for at least 1 year and having agreed to participate in the study were included. Health personnel absent at the time of data collection and those present and not wishing to participate in the study were not included. A self-administered, anonymous questionnaire was sent to caregivers present at the time of the survey. It provided information on socio-professional characteristics (age, sex, marital status, profession, department, seniority) and on burnout. The latter was evaluated using the French version of the "Maslach Burnout Inventory". This is an inventory of 22 items and each of these items allows you to explore one of the 3 dimensions of burnout. Nine items assess emotional exhaustion (example: "I feel emotionally drained by my work"). Five items assess depersonalization (example: "I have become more insensitive to people since I have been doing this job"). Eight items assess personal achievement (example: "I have accomplished many things in this job that are worthwhile"). Each item is rated from 0 to 6 (0 = never; 1 = a few times a year at least; 2 = once a month at least; 3 = a few times a month; 4 = once a week; 5 = a few times a week; 6= daily). The low, medium or high scores of each of the subscales were initially defined by the terciles of a reference medical population [4,5]. The level of burnout is considered low, moderate and high for scores, respectively, ≤17, 18-29, ≥30. For the degree of depersonalization, the low, moderate and high scores are respectively: ≤5, 6-11, ≥12. For personal accomplishment, the low, moderate and high scores are respectively: ≤33, 34-39, ≥40 [6]. The data were entered and analyzed in the "Epi info" software version 7.2.3.1, automatically using the appropriate statistical tests. The Chi2 test was used for proportion comparison. The risk of error threshold was 5% ($p<0.05$). Anonymity and confidentiality of information were guaranteed. The prior, free and informed consent of the respondents was obtained before participation in the study.

RESULTS

Socio-professional characteristics

Ninety-seven caregivers were included (n=97). The female sex was predominant (57.7%), i.e. a sex ratio (M/F) of 0.7. The average age of the nursing staff was 38.3 years ± 7.1 with extremes of 28 and 65 years. Most respondents were married (73.2%). Nurses were in the

***Corresponding Author: BocarBaïlaDiédhiou,**
2Department of Occupational Medicine and Forensic Medicine, FMPO/UCAD, Senegal.

majority, i.e. 61.9%. The rest of the sample was made up of senior technicians (14.4%), doctors (13.4%), midwives (8.2%) and social workers (2.1%). Among these professionals, 57.7% had professional experience greater than or equal to 5 years, while 42.3% had professional experience less than 5 years. The medicine and specialty department was the most represented at 17.5% (see figure 1).

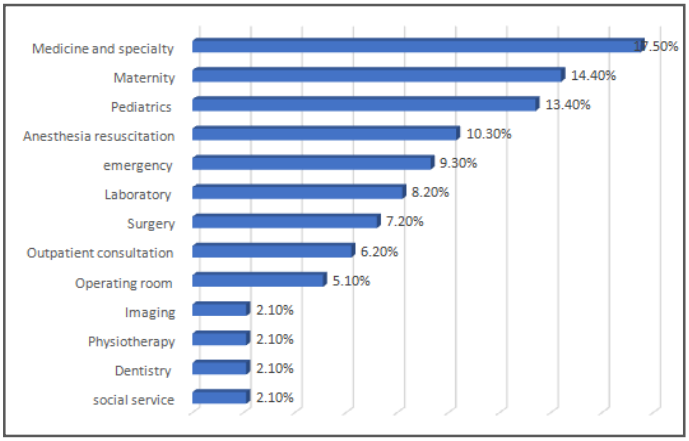

Figure 1: Breakdown of staff by department

Prevalence of burnout and its components

The overall prevalence of burnout was 52.6% (n=51). Burnout was severe in 1% of respondents. Among the professionals, 42.3% had a high level of emotional exhaustion (EE), 21.6% had a high level of depersonalization (DP), and 2.1% had a low level of professional accomplishment (PA) (see Table I).

Table I : Distribution of respondents according to the prevalence of burnout and its components

Burnout and dimensions	Workforce (n)	Percentages (%)
Burn out	51	52,5
severe	1	1
Moderate	14	14,4
weak	36	37,1
Emotional exhaustion		
High	41	42,3
Moderate	37	38,1
Low	19	19,6
Depersonalization		
High	21	21,6
Moderate	52	53,6
Low	24	24,7
Professional accomplishment		
High	79	81,2
Moderate	16	16,7
Low	2	2,1

Analytical results

The link between burnout and socio-professional characteristics was not significant ($p>0.05$) (see Table II). Emotional exhaustion (EE) was statistically correlated with occupation and department ($p<0.05$) (see Table III).

Table II : correlations between burnout and socio-professional characteristics

Socio-professional characteristics		Burnout					
		Yes		No			
		N	%	N	%	Total	P value
Sex	Feminine	31	55,4	25	44,6	56	0,522
	Male	20	48,8	21	51,2	41	
Age range	30 years or less	5	62,5	3	37,5	8	0,345
	31-40 years old	33	57,9	24	42,1	57	
	41-50 years old	11	44,0	14	56,0	25	
	Over 50 years	2	28,6	5	71,4	7	
Occupation	Social worker	0	0,0	2	100,0	2	0,089
	Male nurse	35	58,3	25	41,7	60	
	Doctor	9	69,2	4	30,8	13	
	midwife	3	37,5	5	62,5	8	
	Senior technician	4	28,6	10	71,4	14	
Service	Anesthesia resuscitation	6	60,0	4	40,0	10	0,444
	Operating room	2	40,0	3	60,0	5	
	Surgery	3	42,9	4	57,1	7	
	Outpatient consultation	5	83,3	1	16,7	6	
	Imaging	0	0,0	2	100,0	2	
	Physiotherapy	1	50,0	1	50,0	2	
	Laboratory	4	50,0	4	50,0	8	
	Maternity	6	42,9	8	57,1	14	
	Medicine and specialty	11	64,7	6	35,3	17	
	Dentistry	0	0,0	2	100,0	2	
	Pediatrics	7	53,8	6	46,2	13	
	Social	0	0,0	2	100,0	2	
	emergency	6	66,7	3	33,3	9	
Marital status	Single	10	40,0	15	60,0	25	0,160
	Divorce	2	100,0	0	0,0	2	
	Married	39	55,7	31	44,3	70	
seniority	Under 5 years old	22	53,7	19	46,3	41	0,855
	5 years and over	29	51,8	27	48,2	56	

Table III : relationship between the severity of burnout and socio-professional characteristics

Socio-professional characteristics		Burnout n (%)										total	P
		Absent		low		moderate		high					
Sex	Feminine	25	44,6	25	44,6	5	8,9	1	1,8			56	0,124
	Male	21	51,2	11	26,8	9	22,0	0	0,0			41	
Age range	30 years or less	3	37,5	4	50,0	1	12,5	0	0,0			8	0,734
	31-40 years old	24	42,1	24	42,1	8	14,0	1	1,8			57	
	41-50 years old	14	56,0	6	24,0	5	20,0	0	0,0			25	
	Over 50 years	5	71,4	2	28,6	0	0,0	0	0,0			7	
Occupation	Social worker	2	100,0	0	0,0	0	0,0	0	0,0			2	0,211
	Male nurse	25	80,5	24	80,6	11	38,9	0	0,0			60	
	doctor	4	30,8	6	46,2	3	23,1	0	0,0			13	
	midwife	5	62,5	3	37,5	0	0,0	0	0,0			8	
	Senior technician	10	71,4	3	21,4	0	0,0	1	7,1			14	
Service	Anesthesia resuscitation	4	40,0	2	20,0	4	40,0	0	0,0			10	0,450
	Operating room	3	60,0	1	20,0	1	20,0	0	0,0			5	
	Surgery	4	57,1	2	28,6	1	14,3	0	0,0			7	
	Outpatient consultation	1	16,7	5	83,3	0	0,0	0	0,0			6	
	Imaging	2	100,0	0	0,0	0	0,0	0	0,0			2	
	Physiotherapy	1	50,0	1	50,0	0	0,0	0	0,0			2	
	Laboratory	4	50,0	3	37,5	0	0,0	1	12,5			8	
	Maternity	8	57,1	5	35,7	1	7,1	0	0,0			14	
	Medicine and specialty	6	35,3	8	47,1	3	17,6	0	0,0			17	
	dentistry	2	100,0	0	0,0	0	0,0	0	0,0			2	
	Pediatrics	6	46,2	6	46,2	1	7,7	0	0,0			13	
	Social	2	100,0	0	0,0	0	0,0	0	0,0			2	
	emergency	3	33,3	3	33,3	3	33,3	0	0,0			9	
Marital status	single	15	60,0	9	36,0	0	0,0	1	4,0			25	0,085
	Divorce	0	0,0	1	50,0	1	50,0	0	0,0			2	
	Married	31	44,3	26	37,1	13	18,6	0	0,0			70	
Seniority	Under 5 years old	19	46,3	14	34,1	7	17,1	1	2,4			41	0,595
	5 years and over	27	48,2	22	39,3	7	12,5	0	0,0			56	

DISCUSSION

The average age was 38.3 years. This result is almost similar to that found by Negueu in Cameroon (38.1 years) [7]. On the other hand, Tine had found a slightly higher average age among caregivers at Mbour hospital in Senegal (40.32 years) [8]. Most of the staff were married (73.2%). This result is close to that observed by Tine in his study (74.8%) [8]. The female sex was predominant in our study. This trend towards feminization of the medical and paramedical profession is increasingly described in the literature [8,9]. Indeed, women develop a higher emotional relationship with patients [10]. In our series, nurses were in the majority. This same observation had been made by Diedhiou at the regional hospital center of Kolda in Senegal (44.7%) [9]. The prevalence of burnout was 52.6%. It is close to the result found in Cameroon by Ngalagou (51%) [11]. However, it is lower than the results of, Mararoufi in Tunisia (56%)[12], Negueu in Cameroon (63%) [7], Amamou in Tunisia (70%) [13] and Mion in France (62.3%) [14]. This high prevalence of burnout in our sample would be linked to the multitude of constraints inherent in the role of caregiver in our African context. These constraints are, among others, the lack of human resources, the precarious working conditions, the high workload, the feeling of inefficiency in the face of the inadequacy of the technical platform in relation to the needs of care. On the other hand, other studies conducted in Brazil and the United States had revealed low prevalences of burnout, respectively 21.5% and 20% [15,16]. This low prevalence of burnout in these developed countries is linked to the quality of the highly efficient technical platform and the existence of human resources, quantitatively and qualitatively more adapted to meet the expectations of patients. Of the staff, 42.3% had high emotional exhaustion (EE) and 21.6% had high depersonalization (DP). The prevalence of EE in our study was higher than that observed by Negeu (14%)[7] and Ngalagou (22%) [11].

On the other hand, Maaroufi had found a higher prevalence of EE in his study, i.e. 47% [12]. The youth of our study population would explain this observation. A caregiver at the start of their career has less experience and knowledge of coping strategies to deal with stressful events in their professional life [17]. Thus, high prevalences of burnout are reported during the first years of exercise [18]. Indeed, the increase in professional experience is accompanied by a decrease in depersonalization and an increase in personal accomplishment. The analysis of the dimensions affected by burnout in these caregivers shows a difference on the EE. In our series, emotional exhaustion was statistically associated with occupation and service ($p<0.05$). The most affected professional categories were doctors (61.5%) and nurses (48.3%). Caregivers in the emergency and anesthesia and resuscitation departments were the most affected by burnout. The increase in burnout in these departments is mentioned in the literature [12]. This would be explained by the daily confrontation of caregivers in these services, with physical and psychological suffering, distress, and the reality of death. In addition, new care requirements and the fear of making mistakes in an environment that is increasingly scrutinized by judicial officials increase the pressure on caregivers [3]. The EE in our series was not correlated with the profession contrary to the results of another comparative study on burnout which revealed higher rates of depersonalization and emotional exhaustion among doctors [19]. Compared to gender, the prevalence of burnout was higher in women. But, its correlation with burnout was not significant ($p>0.05$). On the other hand, other studies have revealed a greater susceptibility of women to burnout [20,21]. These women would be more physically vulnerable and would develop a greater emotionality towards the sick [10]. In addition, the difficulty in reconciling professional responsibilities with family life reinforces their suffering. However, other authors have revealed a higher risk for men to develop burnout because of the importance of the workload to which

they are usually subjected [22,23]. Indeed, the most restrictive work requiring a strong physical solicitation, are usually attributed to men. Regarding age, it would be a risk factor for burnout especially, the age group [40 to 50 years] which would be the most affected [24,25]. In our series, young people were more vulnerable to burnout. Sixty-two-point five percent (62.5%) of respondents affected by burnout were under 30 years old. However, the correlation between burnout and age was not significant. Similarly, although professional and organizational constraints differ from one professional category to another, the link was not significant between burnout and occupation ($p>0.05$).The limitations of the study were related to the subjectivity of the responses. The objective evaluation of burnout by a self-questionnaire poses a problem. Thus, a victim of burnout might want to deny his suffering. Therefore, burnout could to some extent be over or underestimated. In addition, the study period could influence the prevalence of burnout because it coincided with the cool period when Senegalese hospitals experience less rush, compared to the hot period when staff are usually overwhelmed by the influx of patients.

CONCLUSION

The determinants of caregiver burnout in our African context are multiple. The improvement of working conditions in African hospitals, a better organization of work, continuous training and the upgrading of the work of these caregivers are to be promoted. Regular psychological monitoring and early treatment of victims of burnout will also limit the harmful consequences of this suffering.

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