

## **Burnout among Health Workers: Case of the Military Hospital of Ouakam, Senegal**

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### **ABSTRACT:**

**Background:** Mental Health is responsible for 13% of global morbidity, and is a priority according to World Health Organization which predicts a duplication of this frequency by 2020. The cult of performance and the quest for maximum profit have led to the emergence of new types of diseases in societies such as professional exhaustion or burnout. The analysis of factors promoting burnout showed that this syndrome is primarily related to chronic stress. Studies in several countries, mostly Western, have showed its importance. This study has aimed to assess burnout in the military hospital of Ouakam.

**Method:** It was a qualitative study conducted among Ouakam Military Hospital workers in 2012. The sampling was complete and the target was made by all hospital workers: technical, administrative and support staff. Participation was free and voluntary. The collection tool consisted of Maslach Burnout Inventory (MBI) on socio-demographic characteristics and criteria of emotional exhaustion, depersonalization and personal achievement. As suggested by Maslach, burnout was first determined for each criterion; then their combination enabled to determine the overall burnout.

**Results:** A total of 66 individuals participated in the study. The average age was 34.5 years, sex ratio 1.64; Married 57.6% and singles 42.4%. About 94% had a level of education equal to or higher than secondary school. Paramedics were 78.8%, support staff 13.6%. Emotional exhaustion was observed in 30.3% of participants, depersonalization of the relationship in 21.2% and disorders of personal accomplishment at 36.3%. The combination of these three parameters has enabled to determine the overall burnout that was 68.2%, the mild form was 46.9% and the moderate form 21.2%; no severe form was observed. Burnout was more common among elderly and paramedics. These results are similar to those observed in other countries that have shown high prevalence of burnout among health workers.

**Conclusion:** Burnout is a reality and, in long-term, can negatively impact health system's performance.

**Keywords:** Burnout, health workers, Military, Ouakam

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### **I. INTRODUCTION**

Nowadays, mental health is one of the priorities of World Health Organization which estimates that 450 million people suffer from behavioral disorders and mental health problems, nearly 13% of total morbidity worldwide; and according to projections, these statistics will double by 2020 [1]. The cult of performance and the quest of maximum profit have led to the emergence of new types of diseases in our societies such as professional exhaustion or burnout [2]. The analysis of factors promoting burnout showed that this syndrome is primarily related to chronic stress, which origin may come from individual and institutional stressors [3,4]. Studies in several countries show that burnout is a reality [5,6,7,8,9].

In France, a cross-national survey, combining the MBI and socio-demographic and professional information among general practitioners of sentinel network showed that burnout affected half of the generalists [5]. A regional survey in Spain showed a high emotional exhaustion rate of 30.2% among general practitioners [6] and in Switzerland, it was 19% [7]. Nowadays, burnout is the leading cause of extended absence from work, commonly known as "long-term disability" [8]. According to a survey conducted in Netherlands, about 3% of workers are suffering from "workaholic syndrome" which means a person who has developed a form of addiction to work. In its extreme form, this dependence may be fatal, particularly following the burnout [9]. To date, few studies have been conducted in Senegal to assess burnout. This research aimed to assess burnout among Military Hospital of Ouakam workers, in order to propose recommendations a sustainable improvement of their working conditions.

## II. METHODOLOGY

It was a qualitative cross study conducted between December 2012 and January 2013 among workers of the Ouakam Military Hospital. It was complete and involved all employees of Ouakam Military Hospital who had seniority of at least one year in the hospital. Were enrolled, present workers who had agreed to participate in the study. The collection was carried out using the Maslach Burnout Inventory tool (MBI) used in many other scientific studies [10,11]. It consists of two parts: the first related to socio-demographic characteristics and the second is about criteria of emotional exhaustion, depersonalization and personal achievement with a series of questions validated by statistical method of factor analysis [10,11,12,13]. The scale was proposed to a population of various professions recognized as being subject to burnout in previous studies (teachers, social workers, police officers, nurses, etc.) [12,13,14]. That second part included 22 items used because of their statistical reliability and validity according to Fontaine[13,14,15].

- 9 items for the criterion of emotional exhaustion,
- 5 items for e depersonalization,
- 8 items for personal achievement.

In accordance with Maslach, the items were evaluated on their frequency to decrease interpretation biases [16,17]. For each item, a score was assigned and the sum of the scores enabled to deduct the level of burnout from the criterion that has three levels: mild, moderate and high. Depending on the burnout of within criteria, the general burnout has been deducted. The diagnosis of burnout or professional exhaustion was retained if at least one of the criteria showed a high degree of burnout. Thus, when one criterion has a high degree, the general level of burnout is mild (light), when two criteria have a high degree, the general level of burnout is moderate. In the end, when the three criteria have a high degree, the general level of burnout is high [18]. At each office, the list of eligible staff with at least one year of seniority was made available to the researcher. An anonymous questionnaire was distributed to eligible staff, who had agreed to participate in the study and signed the informed consent letter. Each participant had self-administered the questionnaire in 48 hours. After checking questionnaires, missing answers were supplemented by those concerned.

The survey was conducted using Sphinx software. After data entry, the database was exported to Excel for correction, then to SPSS for analysis. Ethically, participation was on a free and voluntary base, without any influence on work environment, any need to justify one's refusal or any risk of being sanctioned. There was no financial compensation linked to participation in the study.

## III. RESULTS

A total of 66 volunteers were enrolled in this study. Table I shows their socio-demographic characteristics. The mean age of respondents was 34.5 years with 60 years as maximum age and 19 years as minimum age. 62% of respondents were male and 38% female with a sex ratio of 1.64. Married constituted of 57.6% of respondents and 42.4% were singles. Overall participants had a good level of education, 50% had secondary school level and 44% reached college. Regarding occupational groups, 78.8% were paramedics and 13.6% support staff. Other categories were poorly represented. Half of respondents were responsible for at least one child; and 58.7% of respondents were responsible for a household of 2 to 15 members. Almost 20% of respondents were without pay, 53% with monthly incomes below \$ 342 and 27% with more incomes.

**Table I:** Demographic characteristics of participants

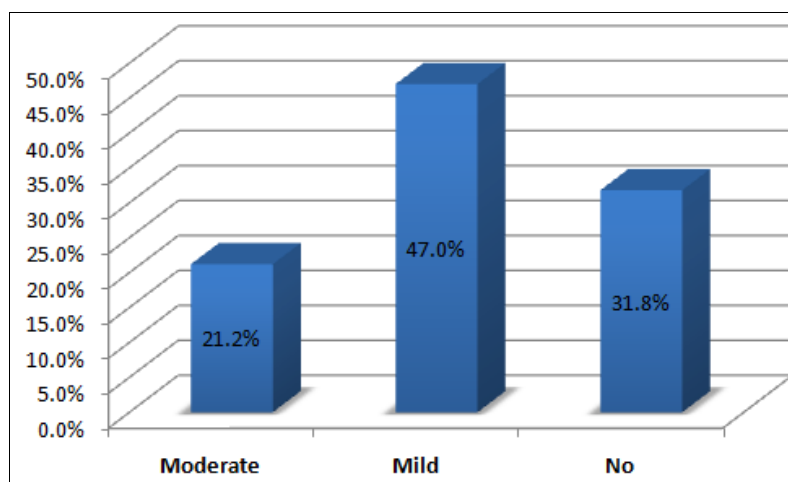
Variable	Number	%
<b>Age</b>		
19-39 years	46	69.7
40-60 years	20	30.3
<b>Gender</b>		
M	41	62.1
F	25	37.9
<b>Marital Status</b>		
Married	38	57.6
Single	28	42.4
<b>Level of instruction</b>		
None	1	1.5
Primary	3	4.5
Secondary	33	50.0
University	29	43.9
<b>Professional category</b>		
Médical	3	4.5
Paramedic	52	78.8
Administrative	2	3.0
Support Staff	9	13.6

Table II shows the distribution of respondents by composite burnout. Frequency of mild emotional exhaustion was 31.8%, that of mild depersonalization 50% and that of mild disorder of personal achievement 19.6%. Frequency of medium emotional exhaustion was 37.8%, that of the medium depersonalization 28.7% and medium disorder of personal achievement 43.9%. Frequency of high emotional exhaustion was 30.3%, that of high depersonalization 21.2% and finally that of high trouble of personal achievement was 36.3%.

**Table II:** Distribution of respondents based on composite variables of burnout (N = 66)

ITEMS	MILD (LIGTH)		MODERATE		HIGH	
	Effectif	%	Effectif	%	Effectif	%
Emotional exhaustion	21	31,8	25	37,8	20	30,3
Depersonalization	33	50	19	28,7	14	21,2
Trouble of personal achievement	13	19,6	29	43,9	24	36,3

Figure 1 below show the distribution of respondents according to burnout: 47.0% of respondents had a mild burnout and 21.2% a moderate burnout. No cases of severe burnout were detected. Thus, the frequency of burnout among Ouakam Military workers was estimated at 68.2%.



**Figure 1 :** Distribution of respondents according to general levels of burnout (N = 66).

80% of respondents aged between 40 and 60 years had a burnout versus 63% in the youngest age group.

#### IV. DISCUSSIONS

The score of burnout remains a concern among health workers regardless the country. The cultural variability of the score asks for caution in comparison between countries [14]. Burnout is closely linked to individual sustained pressures both at social and corporate levels [15]. This study revealed the importance of burnout among health workers of Ouakam Military Hospital, 68.2%. This high frequency is correlated with hypotheses of some scientists. Indeed, burnout affects more particularly caregivers because they are direct witnesses of suffering, misery, misfortune, disease and death [18]. A Canadian study showed that burnout was more common among physicians (53%), followed by nursing staff at 37%, then secretaries at 30% [19]. In Senegal, a longitudinal study among 226 midwives showed that a high proportion experienced high levels of emotional exhaustion (80%) and depersonalization (57.8%). However, they reported being satisfied with their moral and stability at work, and only 12% had low levels of disorder in personal achievement [15]. Socio-professional, demographic and economic factors that may explain the appearance of burnout among Ouakam Military Hospital workers were explored in this study. The study showed that among patients with a burnout, married were more affected (73%) than singles. In this group of married, polygamous were more burned out than monogamous. This result could be explained by occupational requirements and multiple family responsibilities. Among participants who had a burnout (68.2%), 21.2% were at a medium level of burnout that needs supervision. On the other hand, there were no signs of high burn-out. This proportion is in line with that found in Spain where nearly two-thirds of General practitioners suffer from burnout (65.8%) [20].

Our study found a high frequency of 30.3% of emotional exhaustion. This percentage is below the one mentioned in other studies conducted in sub-Saharan Africa, in Zambia and Malawi respective levels of emotional exhaustion at 62.66% and 69% were observed among health professionals [8].

In addition, the high score of depersonalization gives a rate of 21.2% among workers of Ouakam Military Hospital. This study showed a high level of personal achievement of 36.3%. This result confirms the emotional approach of EDELWICH and BRODSKY for whom the stage of frustration is due to a questioning of the relevance of offered service [21,22]. Among individuals with a burnout in our study, elderly are the most

affected. This result could be explained by the duration at offices and experience at work; plus the decline in physical capacity due to age decreases the endurance of workers. As for Swiss data, a research conducted in 2007 on French-speaking Swiss population burnout showed that 43.5% of respondents had a previous episode of burnout [23,24]. A cross-sectional study of Senegalese security forces in peacekeeping mission in Darfur in 2012 teaming up MBI and socio-cultural and professional factors showed a prevalence of burnout at 39.9% [15].

Some authors like FRANCINE FONTAINE think of a correlation between burnout and type of profession [25]. FONTAINE explains that nursing occupation is particularly exposed to burn-out due to unequal exchange between the nurse and his patient. Sometimes the dedicated and engaged nurse in his work is taking care of a person who is unable to recognize his efforts because of his suffering position. This basic dynamic is exacerbated by unfavorable working conditions (lack of manpower or technical means) or by specific care difficult to manage (intensive care, emergency, oncology, pediatric, psychiatric). This study found a high frequency of emotional exhaustion (30.3%) which is below those observed in other studies among health professionals in Sub-Saharan Africa including Zambia and Malawi where emotional exhaustion score was respectively 62.6% and 69% [8].

## V. CONCLUSION

This study allowed to mention the importance of burnout in the military hospital workers of Ouakam characterized by a high attendance and an obligation of results in a context of personnel deficit. This photograph could be replicated at several public health facilities in developing countries. This shows the urgency of taking measures to improve the social and working environment of workers especially those of health. Indeed, a large-scale burn-out could negatively impact on key indicators of sustainable development such as those related to the well being of the family.

**Competing interests:** The authors declare no competing interests.

**Authors' contributions:** NDIAYE Abdoul Aziz, BALDE Seny and DIENG Amadou Cambel: design, data collection, statistical analysis and manuscript review. Other authors: design and manuscript review. All the authors have read and approved the final version of the manuscript.

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