

Psychological living of surgical interns in their professional activities during the CoViD-19 pandemic

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Abstract

Introduction

The CoViD-19 pandemic had affected all health sectors worldwide. Surgical interns had to reinforce the teams of resuscitators and emergency physicians in the treatment centers for CoViD-19 patients in the face of the health emergency. These restructurings had caused considerable upheaval at times.

The objective of our study was to share the psychological experience of digestive surgery interns in their work area during the CoViD-19 pandemic.

Patients and Method

Our cross-sectional survey was based on questions addressed to the concerned nursing staff within the hospital. The parameters assessed included their "self-esteem" according to the Rosenberg scale. The MDI questionnaire was used to estimate their "level of stress and depression". The EORTC QLQ-C30 questionnaire calculated the quality of their daily and professional lives following these changes.

Results

Twenty-eight surgery interns had been assigned to CoViD-19 patient treatment centers over a three-month period. Self-esteem was low with a score below 30 for all participants. A decrease in self-esteem between the "before" and "after" CoViD-19 period in 35% of the interns. The MDI questionnaire identified severe depression in 28% of cases with a score above 30. The average quality of work life was 4.8/7.

Conclusion

All digestive surgery residents had experienced emotional exhaustion during the pandemic. Self-esteem was low, however quality of life was good at the end of the crisis for the majority.

Introduction

The CoViD 19 pandemic affected all health sectors worldwide [1]. Management had to be adapted according to the state of health emergency [2]. The epidemic affected also

the psychological resources and resilience [3]. Madagascar was not spared in 2021 by the arrival of a new wave. The excessive number of patients and severe cases highlighted, the lack of beds and health care personnel, requiring organizational restructuring [4, 5].

Surgical interns changed their daily activities to reinforce the resuscitation and emergency teams in the CoViD 19 treatment centers during this pandemic. Analyzing the impact of the pandemic on the mental health of health care personnel in training is essential for the management of a health crisis [6,7,8].

The objective of our study was to share the lived experience of surgical interns in their work area during the CoViD-19 pandemic.

Patients and method

Our cross-sectional survey was based on a series of questions addressed to the nursing staff concerned in our hospital. The parameters evaluated included their self-esteem according to the Rosenberg scale. The MDI questionnaire was used to estimate their level of stress and depression. The EORTC QLQ-C30 version 3 calculated their daily activities and their quality of life at work in the face of these various upheavals. Surgical interns assigned to CoViD 19 management centers were included; interns from other specialties were not included.

The sampling was exhaustive. Medical confidentiality was respected. The data were archived in a computer system protected by a password. The participants answered the questionnaires voluntarily without financial or other compensation.

Results

The response rate was 93.33%. The sex ratio was 26/2. Age ranged from 24 to 29 years with a median of 26.9 years. Twenty-eight surgical interns participated in our inquiry. The mean Rosenberg scale score was 20.8 and 20.9 before and after the pandemic, respectively. The MDI score had a mean of 24.78 vs 25.92 before and after the pandemic reflecting a several state of depression. Two interns reported rejection and discrimination in social life due to their professional promiscuity with CoViD 19 patients. On a scale of 1 to 10, their average quality of work life was 4.71 with extremes of 3 to 7. None of the interns had high self-esteem according to the EORTC questionnaire. Eight interns had low self-esteem before and after the pandemic.

Discussion

In our survey results, the interns were mainly young subjects. Controversy still exists in the literature between the risk of occupation-related depression in young subjects compared to

more experienced subjects in the field [2]. Several occupational factors such as daily work stress and personal factors such as a psychological history making the subjects vulnerable had been considered relevant as risk factors for depression [3]. Our study revealed a significant rate of depression.

The status of intern exposes more to mental health problems with a high risk of Burnout with the cumulative daily load and the pressure they put on themselves in their productivity. Burnout is mainly seen in the personal assistance professions. In a study carried out by Lancee, the state of emotional exhaustion was 16% for interns, and depersonalization was 33.8%. Significant links in daily life were highlighted such as: workload, lack of recognition, lack of time devoted to private life [2]. Following the pandemic and during its peak, the workload did not cease to increase with the growing incidence of severe CoViD cases with a significant morbi-mortality. The latter had exposed more to emotional exhaustion [7].

A Malagasy survey conducted on surgical interns at the Joseph Ravoahangy Andrianavalona Hospital in 2017 had already found a high level of depression and marked anxiety during the first two years of training. This would be related mainly to the state of chronic tiredness and the overloaded daily rhythm of life [4]. In 2012, Rakotondrainibe et al also found a professional burnout rate of 51.2% among doctors in two surgical centers in Antananarivo, 4.2% of whom had experienced an emotional exhaustion syndrome. The latter was related to the doctor's university hospital title [4]. This emotional exhaustion was linked to a threat to the identity of the person concerned with depersonalization. In a study in 2019, however, no difference was found between specialist and non-specialist physicians with regard to the occurrence of emotional exhaustion [5].

This depression could also be linked to the stand by in all non-emergency surgical activity during the pandemic, which was disabling for surgical interns, although unavoidable given the health situation. Indeed, Rahantaso et al had exposed in their studies within their hospital in Antananarivo during the investigation of glogalsurg collaborative in 2020 that in order to reduce as much as possible the risk of iatrogenic contamination of hospitalized patients and to manage the beds in intensive care, the programmed surgeries had been suspended. Only surgical emergencies (vital, carcinological, nutritional, etc.) remained a priority during each wave of the SARS-Cov epidemic [4].

Depression, anxiety, exhaustion and burnout syndromes had also been observed during other epidemics in the past (Ebola, SARS) in Europe and Africa [6,7,8]. A study conducted by Wang et al in China found a significantly higher level of anxiety ($p=0.05$) and depression

(0.007) among healthcare workers linked to CoViD 19 than among non-medical workers [9,10].

The most exposed specialties were supposedly those in close contact with infected patients. As the majority of viral transmission was described by the respiratory route, the risk of contamination remained significant [11,12]. Cases of social rejection had also been observed in our survey due to the contagiousness of CoViD. Caregivers were stigmatized and marginalized [13,14].

Reduced working hours, regular shifts and psychological support at work were significantly associated with a state of well-being and performance of the interns [15,16].

Conclusion

All surgical interns had experienced emotional exhaustion during the pandemic. The level of depression was significant both before and after the pandemic, however. Self-esteem was low, however quality of life was acceptable at the end of the crisis for the majority. Internship is still a high-risk occupation for burnout worldwide, sometimes requiring psychological support.

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Conflict of interest

There were no conflicts of interest in this study