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Psychological status of surgical staff during the COVID-19 outbreak

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Psychological status of surgical staff during the COVID-19 outbreak

Dear editor ,

In the outbreak of novel coronavirus pneumonia that occurred in early December 2019, the World Health Organization named this new coronavirus SARS-CoV-2 (XINHUANET, 2020). The World Health Organization has raised the assessment of the global spread and risk of COVID-19 virus to "very high" (WTO, 2020). As of March 21, 81,416 people had been diagnosed with new coronary pneumonia in China, and 3,261 had died. More than 188,876 confirmed cases and 7,956 deaths occurred in more than 160 countries around the world. The sudden increase in confirmed cases has brought tremendous stress and anxiety to frontline medical staff. This includes not only internal medicine departments such as the respiratory department, but also surgical medical staff is also facing huge pressure. Therefore, this study hopes to draw public attention to the mental health of surgical staff.

A total of 120 subjects from the surgical medical staff of Baoshan Branch of Shanghai Shuguang Hospital were divided into two groups (60 in each group) at two time periods (outbreak period: January 28, 2020 to February 29, 2020; Non-epidemic outbreak period: March 2nd to March 21st, 2020) fill out four scales (Anxiety scale, Depression score, Dream anxiety score and SF-36 scale). By comparing the capital data of surgical staff from different periods of the epidemic, we found that there was no significant difference in the age, gender, and marital status of the surgical staff in the two periods($P > 0.05$). According to statistics, the anxiety score of surgical staff during the outbreak period was 7.817 ± 2.508, of which 28 were positive (≥ 8 points). The anxiety score of surgical staff during the non-outbreak period was 5.283 ± 1.738, of which 6 were anxiety positive. The anxiety score of the surgical staff during the outbreak period was significantly higher than that of the surgical staff during the non-outbreak period ($t = 6.432$, $P <0.001$). The depression score of surgical staff during the outbreak period was 7.333 ± 2.508, of which 24 were positive for depression (≥ 8 points). The depression score of surgical staff during the non-outbreak period was 4.933 ± 2.154, of which 7 were positive for depression. Obviously, the depression score of surgical staff during the outbreak was higher than that of surgical staff during the non-outbreak ($t = 4.531$, $P <0.001$). At the same time, the dream anxiety score and SF-36 of the surgical staff during the outbreak were significantly higher than those of the surgical staff during the non-outbreak ($t = 17.365$, $P <0.001$; $t = 1.974$, $P <0.001$). In addition, the anxiety score, depression score, and dream anxiety score of the surgical staff during the outbreak period were positively correlated (Figure 1D, E, F), and the depression score and dream anxiety score of the surgical staff during the outbreak period were strongly positively correlated Sex (Figure 1A).

The results showed that the degree of anxiety and depression of the surgical staff during the outbreak was significantly higher than that of the surgical staff during the non-outbreak. COVID-19 is an acute respiratory disease. It can spread through a variety of routes, such as close air and close contact, and can cause infections in hospitals. COVID-19 causes many medical personnel to be easily infected in a short time when treating patients. Surgical medical personnel also occupy an important position in this epidemic, there are also many

SARS-CoV-2 confirmed cases that require surgical treatment. Surgical patients will not be reduced due to the outbreak of the epidemic. Especially, not all patients undergoing emergency operation and confine operation have been tested for viral nucleic acid, and it is impossible to determine whether the patient has no history of exposure to SARS-CoV-2. Therefore, during the month of the epidemic outbreak (January 28, 2020 to February 29, 2020), the medical staff faced all patients who must be treated as soon as possible and inevitably need to worry about their own risk of infection. These include surgeons and anesthesiologists, who need to perform intubation and other operations, and they all need to be in close contact with patients at high risk. It is even more common for patients to conceal their exposure to high-risk areas of SARS-CoV-2 in order to receive timely treatment. Therefore, during the outbreak, the surgical medical staff suffered the risk of self-infection, and the huge psychological pressure caused the anxiety and depression. However, mental health problems will affect the working status of surgical medical personnel to a certain extent, and affect the treatment of patients. Therefore, it is necessary to pay attention to the mental health of surgical medical personnel. Studies have shown that acute stress events such as SARS have significant negative psychological effects on medical staff. Surgical medical staff is also one of the forces to resist COVID-19, while preventing and controlling the epidemic, we must not forget the treatment of the remaining patients with severe surgery. In summary, in order to protect the mental health of surgical medical personnel, ensure adequate rest time and must pay attention to as early as possible, and give certain psychological intervention measures.

Reference

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Figure1 Correlation between anxiety, depression and dream anxiety

Note：Correlation between anxiety and depression in surgical staff during the non-outbreak period (A) (P<0.0001), correlation between anxiety and dream anxiety (B), and correlation between depression and dream anxiety (C). Correlation between anxiety and depression in surgical staff during the outbreak period (D) (P<0.0001), correlation between anxiety and dream anxiety (E) (P<0.0001), and correlation between depression and dream anxiety (F) (P<0.0001).