

# Investigation and Analysis on the Psychological Health and Work Stress of Medical and Nursing Personnel in Special Times

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**Abstract:** Objective: To investigate the mental health and work stress of medical staff during special periods. Methods: 86 local medical staff were selected to analyze anxiety self-assessment (SAS), depression self-assessment (SDS) and occupational stressors, and analyzed the correlation between mental health and work stress. Results: The SAS score and SDS score were all higher than the domestic norm results. According to the work pressure analysis, medical staff believe that the medical environment is more pressure, followed by professional level, workload and time allocation, management and interpersonal relationship, while the work environment and resources, scientific research and teaching have less pressure. SAS, SDS and 6 dimensions showed correlation. Conclusion: Medical staff have obvious anxiety and depression, and the work stress is high, and there is a significant correlation between mental health and work stress.

**Keywords:** Special period; Medical staff; Mental health; Work stress

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In modern society, the incidence of infectious diseases is gradually increasing, and many diseases spread rapidly, bringing a large burden to the medical and health industry<sup>[1,2]</sup>. In the special period of rapid spread of infectious diseases, medical staff work burden, responsibility, plus heavy medical work itself, treated patients with higher expectations of treatment effect, and in recent years, the requirement of medical work, in this case, medical staff's mental health and work pressure, certain changes have taken place, to understand the specific situation, this study selected 86 medical staff, investigation and analysis, now reported as follows.

## 1. Data and methods

### 1.1 Clinical data

From January to December 2022, 86 medical staff from local hospitals were randomly selected, mainly for pediatrics, laboratory, laboratory and emergency department. Medical staff were kept working for more than 1 week; willing to participate in this study. Excluding those who have a rest of more than 10d within 1 month due to special reasons.

### 1.2 Methods

Using the survey method of WeChat questionnaire star, the questionnaire should be distributed to the medical staff, and the name of the respondent should be filled in in the first language. In this study, 86 questionnaires were distributed and 86 were recovered with a recovery rate of 100%. The survey content includes the name, gender, age, years of work, and work content.

Anxiety self-assessment scale (SAS) and depression self-assessment scale (SDS) were used to assess the mental health of patients. There were 20 items in SAS, grade 4 scoring method, calculated and converted into standard score, more than 50 points, indicating the existence of anxiety. The SDS scale has 20 items, line 4 grade scoring method, calculated and converted into a standard score, 53 points above, indicating the existence of depression.

Using the occupational stressor scale, the work pressure of patients was evaluated. The scale has 6 dimensions and 34 items, and the higher the score, the greater the pressure.

### 1.3 Observed indicators

(1) statistics of general data of medical staff; (2) statistics of mental health assessment results.(3) Explore the relationship between mental health and work stress.

### 1.4 Statistical analysis

Data were analyzed with SPSS20.0, and measurement data ( $\pm s$ ) were u-checked. A  $P < 0.05$  was considered as a significant difference.

## 2. Results

### 2.1 Basic situation analysis

In this group, there were 86 medical staff, 17 male (19.77%) and 69 females (80.23%), 17 old (19.77%), 51 (59.30%) aged 31-40, and 18 (20.93%). Working years: 19 (22.09%) within 5 years, 31 (36.05%) in 6-10 years, and 36 (41.86%) over 10 years.30 doctors (34.88%) and 56 nurses (65.12%); professional title: 57 primary (66.28%), 28 intermediate (32.56%) and 1 associate senior 1.16 (%). Education: 24 technical secondary school degree (27.91%), 24 junior college degree (27.91%), 35 undergraduate degree (40.70%), 3 master's degree or above (3.49%).

### 2.2 Analysis of the mental health situation of medical staff

Comparing the staff and staff, the SAS and SDS scores were higher than the results ( $P < 0.05$ ). See Table 1.

Table 1: Comparison of mental health of medical staff and national norm ( $\pm s$ , points)

group	SAS	SDS
Medical staff	49.67 $\pm$ 7.42	51.80 $\pm$ 6.58
norm	37.23 $\pm$ 10.58	41.88 $\pm$ 10.57
<i>u</i>	8.43	12.85
<i>P</i>	<0.05	<0.05

### 2.3 The relationship between work stress and mental health

Observing the work pressure of medical staff, it is believed that the pressure of medical environment is greater, while the pressure of working environment and resources, scientific research and teaching is less. Taking each dimension of work pressure as the independent variable, SAS and SDS as the dependent variables, the correlation analysis showed that both SAS, SDS and six dimensions showed a correlation. See Table 2.

Table 2: Comparison of mental health of medical staff and national norm ( $\pm s$ , points)

Career stressors	working pressure	SAS ( <i>r</i> )	SDS ( <i>r</i> )
Professional level	16.38 $\pm$ 4.12	0.32	0.36
Workload and time allocation	11.52 $\pm$ 2.86	0.35	0.41
Workload and time allocation	8.12 $\pm$ 1.96	0.33	0.32
Working environment and resources	4.19 $\pm$ 2.30	0.38	0.35
Management and interpersonal relationships	9.48 $\pm$ 1.57	0.41	0.45
medical environment	18.19 $\pm$ 4.32	0.47	0.46

### 3. Discussion

The occupation of medical workers is very special, coupled with the changes of medical mode and the influence of other external factors, many medical workers bear heavy work responsibilities and bear great psychological burden. Especially in recent years, the incidence of infectious diseases, in the special period of long-term prevention and control, part of the medical staff showed tired, nervous state, reflect the professional psychological pressure increase, understand the mental health situation and work pressure, is the maintenance of medical human resources, the important measures to improve the medical staff work efficiency of<sup>[3,4]</sup>.

In this survey, 86 medical staff were randomly selected and investigated with the approved scale. The results showed that 86 medical staff had SAS score ( $49.67 \pm 7.42$ ) and SDS score ( $51.80 \pm 6.58$ ), which were all higher than the domestic norm results. It can be seen from this result that medical staff may have some psychological problems in special periods, mainly anxiety and depression, which need the attention of hospital administrators.

In this study, the work pressure analysis of 86 medical staff believed that the medical environment was more stressful, followed by professional level, workload and time allocation, management and interpersonal relationship, while the work environment and resources, scientific research and teaching were less stressful. The reason why the medical staff have greater psychological pressure.

This study also analyzed the relationship between mental health status and work stress, and found that the SAS, SDS, and the six dimensions of the work stress scale showed a correlation. It is inferred that in special periods, medical staff due to high work pressure, so some negative emotions appear, and then affect their mental health. This reminds us that medical staff need to pay attention to their own mental health, and should start from the social, psychological and biological three aspects, to improve their own psychological defense function. For example, in daily life, it can increase exercise, form a good lifestyle, and form a correct cognition of work pressure. Hospital managers should pay attention to the physical and mental health of medical staff, build an effective social support network, and provide a benign support mechanism for them, so as to reduce their psychological pressure and improve the mental health level of medical staff.

To sum up, there is obvious anxiety and depression in medical staff during special periods, and the work pressure is high, and there is an obvious correlation between mental health and work pressure.

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