

SOCIAL WORK INTERVENTION FOR ANXIETY AND DEPRESSION AMONG MEDICAL WORKERS DURING THE COVID-19 PANDEMIC: "INTERNET PLUS MUSIC THERAPY"

Yaqin Hu

School of Law, Southwest Petroleum University, Chengdu, Sichuan, China

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SUMMARY

Background: To explore the effect of social work intervention on psychological intervention of medical workers after the epidemic under the mode of "internet plus Music Therapy".

Subjects and methods: The observation objects in this study were all medical workers in fever clinic under the epidemic situation in COVID-19. A total of 60 cases were selected, and the proportion of anxiety and depression of medical workers in fever clinic was investigated by electronic questionnaire. After completing the investigation, social work intervention measures under the mode of "internet plus Music Therapy" were implemented.

Results: After implementation, the proportion of anxiety and depression of medical workers were significantly lower than those before intervention ($P < 0.05$). The development of music therapy activities has alleviated the job anxiety of medical workers to a great extent, and the job anxiety test, total score and scores of various factors have all decreased.

Conclusions: Social work intervention under the mode of "internet plus Music Therapy" can relieve anxiety and depression, and ensure the mental health of frontline medical staff during the epidemic.

Key words: internet - music therapy - social work intervention - epidemic situation - medical workers - psychological intervention

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INTRODUCTION

During the epidemic period, the front-line medical staff not only face the epidemic directly and have corresponding psychological stress, but also have great work pressure because they participate in the treatment of clinical patients under special circumstances. Some medical staff fighting in the front line have psychological stress reactions such as anxiety, depression, somatization, etc., which will directly affect the implementation of their clinical medical treatment and nursing work, and is not conducive to their physical and mental health (Sin et al. 2015). Medical personnel play a vital role in the prevention and control of new infectious diseases. When faced with infectious diseases, medical personnel are constantly in a state of double psychological stress of themselves and others. Therefore, it is particularly urgent and important to carry out appropriate psychological intervention on medical personnel who still insist on their posts during the wanton spread in novel coronavirus.

Strengthening the protection of medical workers in fever clinic during COVID-19 epidemic is an important measure to ensure the physical and mental health of medical workers (Fuliyun et al. 2019, Waris Nawaz et al. 2020, Mosolova et al. 2020). In order to ensure that the medical workers in fever clinic can maintain a healthy mental state in the process of daily medical work, and can provide medical services for patients in a better physical and mental state, the backbone of the psychological nursing group of our hospital carries out

psychological evaluation for the medical workers in fever clinic, and carries out corresponding intervention measures for them in combination with the evaluation results (Guan et al. 2019). This paper mainly analyzes the psychological status of medical workers in fever clinic under COVID-19 epidemic and the effect of social work intervention under the mode of "internet plus Music Therapy". Some medical workers are specially selected for research, and the details are as follows.

"Music therapy, also known as music therapy and music medicine, started as a discipline in the United States in the 1950s, and is a new interdisciplinary subject integrating music, medicine and psychology." Music therapy, as a novel means of psychological problem treatment, has many outstanding advantages in the field of psychological problem treatment for medical workers (Albott et al. 2020).

First, music therapy does not use drug therapy and psychological counseling for individuals, which will not produce rejection and has good acceptability. The groups receiving treatment are not limited, and the applicable groups are wide.

Secondly, in the process of music therapy, it is mainly for individuals to listen to music with their heart, and it does not require individuals to have rich music knowledge reserves or deep understanding of music. The treatment operation is simple and convenient, and is not limited by time and space.

Third, music therapy can create a good mood for individuals and render individual emotions, thus achie-

ving the effect of relieving individual psychological pressure, which is low in cost and easy to accept. To sum up, as long as effective measures and strategies are combined, music therapy can play a certain role in the mental health education of medical workers.

The author thinks that it is an effective way to solve the increasingly serious mental health problems of medical workers by combining the mental health counseling work of medical workers with the above three advantages of the Internet and innovatively developing an online and offline integrated psychological counseling service platform which is more convenient and meets the actual needs of medical workers.

According to the survey, during the period of sudden public health events, the probability of mental health problems among front-line medical staff who are in close contact with patients is relatively high (Caitiancai et al. 2020), and many medical staff are exposed to occupation due to inadequate protection, and medical staff will suffer a greater blow in the face of colleagues' infection. When negative emotions accumulate and cannot be relieved, it is likely to aggravate the psychological stress of medical staff at present. The psychological stress of medical staff varies from place to place and from department to department. It is an important task to intervene in the psychological crisis in different situations, especially to reduce the negative emotions such as anxiety of medical staff by telling and listening.

When the doctor-patient relationship is tense, patients tend to have dissatisfaction with the medical staff, and sometimes they are hostile to the medical staff in an anxious state. Patients' incomprehension and uncooperative will cause grievances, fears and helplessness among medical staff. In addition, fighting against viruses has caused great harm to their body and mind and is not easy to eliminate, which undoubtedly brings great difficulties to diagnosis and treatment.

After responding to too many requests for charity and assistance, medical staff may gradually show indifference to the people in distress in the face of countless critically ill patients and death cases that are constantly contending with each passing day. This is not the ruthlessness of medical staff, but the psychological stress caused by being in this working state for a long time. Therefore, regular mental health assessment of medical staff before the outbreak, and strengthening intervention and assessment of psychological crisis of medical staff during and after the outbreak will help medical staff to be technically accurate and focused, and effectively reduce the error rate.

SUBJECTS AND METHODS

A total of 60 medical workers who met the inclusion criteria were randomly divided into two groups: positive psychological intervention group and routine intervention group. Among them, 31 were in positive

psychological intervention group, including 18 males and 13 females. The age ranged from 20 to 47 years, with an average of (30.25 ± 0.19) years. There were 29 people in routine intervention group, including 10 males and 19 females. The average age was (30.10 ± 0.32) years, ranging from 22 to 45 years. There was no difference in sex and age ($P>0.05$).

Intervention method of social work

Adopting phenomenological analysis method in qualitative research, we conducted one-on-one in-depth interviews with the subjects. Avoid omissions, and design an interview outline according to literature review and expert consultation in advance before the interview.

Before the interview, the researcher shall explain the research purpose, significance and duration to the interviewee, ensure the confidentiality of the interviewed content, obtain the consent of the interviewee to sign the informed consent form, and record after obtaining the consent. During the interview, according to the interviewee's situation and the interview outline, the questioning method should be flexibly adjusted. Interviewers should listen carefully, observe the interviewee's expressions and actions carefully, and make proper records in the notebook. Each case is interviewed for 20-30 minutes, and the whole interview is recorded synchronously.

Medical workers download tinnitus assistant software through smart phones, complete "tinnitus online diagnosis", upload audiogram and other hearing test results, and input tinnitus frequency, loudness and other data reflecting their unique tinnitus. By simulating the hearing threshold and tinnitus characteristics of medical workers, the software embeds special audio into the original music, and it is advisable to control the volume to just hear the tinnitus sound. Also wear earmuffs, listen for 1 hour every day, and continue to treat for 90 days.

We will set up a WeChat group of medical workers, and hold a group meeting once a week, each time lasting about 2 hours and lasting for 8 weeks, and the patients will be treated by the psychological professional doctors of our hospital and the outpatient nurses of our department. Encourage medical workers to interact and exchange treatment experience in groups. At the end of each week, the nurse collects the questions raised by the medical workers and submits them to the doctor, and answers the questions according to the professional fields in the next course.

Combined with hospital HDA scale, the questionnaire of mental health status of medical staff was developed, some backbones of mental nursing groups in hospitals were selected to set up COVID-19 epidemic psychological nursing working group, and wechat WeChat official account and wechat group were established. If the score of the questionnaire is ≥ 11 points,

Table 1. Compare the proportion of anxiety and depression among hot medical workers before and after the implementation of intervention measures n, %

Time	Number of cases	Anxiety proportion	Depression ratio
Before implementation	60	31(51.7)	23(38.3)
After implementation	60	5(8.3)	3(5.0)
χ^2 value		12.07	18.24
P value		0.01	0.01

Table 2. Difference significance test results

	Forward measurement M±SD	Post test M±SD	t value
Worrying.	20.13±3.27	17.88±4.41	2.781*
Emotional	23.47±3.36	20.17±53.27	4.018***
Aggregate score	44.36±5.52	42.71±9.33	4.862***

Note: * P≤0.05, *** P≤0.001

Table 3. Difference significance test results

	Forward measurement M±SD	Post test M±SD	t value
Worrying.	21.36±3.57	15.24±5.66	6.653***
Emotional	25.51±3.67	16.17±5.53	9.801***
Aggregate score	43.21±6.84	41.28±11.37	9.331***

Note: *** P≤0.001

it means that there must be bad psychological emotions. The assistant director nurse qualified as a third-level psychological counselor can carry out basic psychological companion nursing, listening nursing and psychological counseling nursing, etc., and carry out special psychological intervention for medical workers. Then, the information recorded with the voice of nature is distributed to them through WeChat, and the medical workers are instructed to listen and start association, so as to stimulate their memories of the past and peak experience of emotions, and then relax their bodies and minds.

Observation index

Observe and count the proportion of anxiety and depression of medical workers in the above-mentioned fever clinic. And recorded and analyzed the proportion of anxiety and depression among hot medical workers before and after the implementation of intervention measures.

Statistical analysis

SPSS21.0 software was used for data processing, and the expression of measurement data was ($\bar{x} \pm s$). Statistical description was used for general situation analysis, and T test was used for comparison of two independent samples. The standard of statistical significance was P<0.05.

RESULTS

The proportion of anxiety and depression among popular medical workers after intervention

According to the data in Table 1, the proportion of anxiety and depression of popular medical workers after the implementation of intervention measures were significantly lower than those before the implementation (P<0.05).

Table 2 shows that the anxiety, emotion and total score of the routine intervention group in the job anxiety test are lower than those in the pre-test. After examination, there are significant differences between the pre-test results and the post-test results in anxiety, emotion and total score.

Table 3 shows that the anxiety, emotionality and total score of the subjects in the active psychological intervention group are significantly lower than those in the pre-test. After examination, there are significant differences between the pre-test results and the post-test results in anxiety, emotion and total score.

DISCUSSION

COVID-19 epidemic is serious, highly contagious, and its prognosis is unknown. People are still not very clear about its etiology and treatment measures, and there is fear (Jakovljevic et al. 2020). Therefore, after the outbreak of the epidemic, some medical workers

fighting in the forefront of the epidemic inevitably have negative emotions such as anxiety and depression to varying degrees, and produce psychological stress sensitive to interpersonal relationships, which will have a great impact on the orderly development of future work. Therefore, in special epidemic stations, it is very necessary and important to know the psychological state of front-line medical workers in time and take effective measures to intervene, and at the same time, it is necessary to highlight human concern.

Because of the importance of psychological crisis intervention, in developed countries such as the United States, Japan, and Britain, psychological crisis intervention for medical staff has become an indispensable and important part in the management of public emergencies such as infectious diseases, and a set of relatively mature psychological crisis intervention mechanism has been established (Krishnamoorthy et al. 2020). Some researchers designed a psychological crisis intervention model according to the three-stage theory of crisis development, and pointed out that it should be based on the psychological characteristics of medical staff in different stages (Feng et al. 2020), including pre-crisis (daily mental health education to enhance people's psychological preparation for coping with crisis), crisis (practical intervention methods such as individual and group counseling), and post-crisis (learning self-regulation methods from crisis) (Huang et al. 2020). Literature (Tauber et al. 2019) shows that in the outbreak of special infectious diseases, managers' care and sympathy play an important role in encouraging the morale of medical staff. Therefore, hospital management decision makers should pay attention to encouraging and supporting medical staff.

In this study, the psychological survey results of 60 medical workers in fever clinic showed that the proportion of anxiety and depression was 51.7% and 38.3%, respectively. After the intervention measures were implemented, the proportion of anxiety and depression of medical staff was 8.3% and 5.0%. The results showed that all the medical workers in fever clinic under COVID-19 epidemic had different degrees of bad psychological emotions, and the intervention measures combined with their psychological conditions could promote the improvement of bad psychological emotions and reduce their impact on the development of medical work.

In different levels of distribution, there are significant differences among the subjects with mild, moderate and severe work anxiety symptoms in the active psychological intervention group before and after the experiment. Among them, the difference between the subjects with mild level before and after work anxiety is the most significant. Although the subjects with moderate and severe level also have significant differences before and after work anxiety, the degree of decline is smaller than that of the subjects with mild level. At the same time, the symptoms of job anxiety in

the positive psychological intervention group showed obvious differences before and after the test.

According to the above analysis, we can draw the conclusion that social work intervention under the mode of "internet plus Music Therapy" can improve the work anxiety symptoms of the subjects at different levels, and it is effective at mild, moderate and severe levels, among which the effect is most obvious for the subjects at mild level. The reason may be that the anxiety symptoms of the subjects at severe work anxiety level have become more serious, which requires long-term treatment or other treatments to improve significantly. Therefore, early intervention is particularly important for music therapy.

CONCLUSIONS

To sum up, through the social work intervention in the mode of "internet plus Music Therapy" for medical workers with job anxiety, the test results of medical workers in the active psychological intervention group show that they can relax in activities, relieve the physical and psychological pressure brought by work, gradually understand themselves, improve their self-evaluation and finally readjust their mentality to face the future study and life. The music therapy activities in this study not only improved the mental health level of medical workers as a whole, but also promoted the all-round development of mental health.

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Correspondence:

Yaqin Hu
School of Law, Southwest Petroleum University
Chengdu, Sichuan, 610500, China
E-mail: yaqinhyy@xxxhi.cc