

Protocol

Mental Health Care for Medical Staff in Iran during the COVID-19 Pandemic; Different Performance in Alborz Province

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Abstract

Objective: The mental health status of health care workers (HCWs) related to COVID-19 is of great importance. By designing cross sectional studies, we evaluated disorders related to the mental health of these health workers. Short-term and long-term diagnostic and treatment interventions are other components of this care protocol.

Method: This study includes a collection of studies and interventions in the form of analytical cross sectional study at the level of educational hospitals of Alborz University of Medical Sciences. In this study, HCWs were evaluated for mental health disorders in quantitative and qualitative studies. Depression, Anxiety and Stress Scales (DAS), Posttraumatic Stress Disorder (PTSD) questionnaires, and Stigma questionnaire in quantitative studies with thematic approach in qualitative study were used to evaluate and analyze the data.

Conclusion: A series of coherent measures have been taken to prevent, screen, and treat mental health disorders of the staff who provide services to patients with COVID-19. We hope the results of these measures will be used as a guide for other professionals and academic and hospital centers in similar conditions to effectively control the disease and improve the mental health of HCWs.

Key words: COVID-19; Cognitive Counseling; Mental Health; Medical Staff; Iran

Here, we present a protocol that can be used to assess and manage the mental health status of COVID-19-related health care workers (HCWs). This protocol has study components in the form of qualitative studies focusing on the assessment of major psychiatric disorders, including stress, anxiety, depression, and PTSD. It also examines the status of stigma among HCWs.

The obtained results, in addition to presenting the report in the form of relevant articles, can identify the cases that require psychiatric, psychological, and counseling interventions and can also be used to treat the cases that need intervention. After coordination, the identified cases are referred to special clinics designed for this purpose. The results of the recent intervention will be followed up. At the end of the presentation of the

Protocol, a report on its implementation in the pilot study in Alborz province, Iran, will be presented. The main goal of the recent study is to provide a comprehensive assessment of mental health disorders in HCWs during the COVID-19 epidemic.

In a multicenter study of the protocol, the prevalence of depression, anxiety, and stress among HCWs related to COVID-19 was 41.7%, 51.2%, and 33.9%, respectively (1).

By implementing the components of this protocol we will assess the prevalence of depression, anxiety, and stress among HCWs and assess the prevalence of posttraumatic stress disorder and stigma among health care workers by evaluating the mental health needs and status of stigma among health care workers.

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Materials and Methods

Study Design

This study includes a collection of studies and interventions in the form of an analytical cross sectional study at the level of educational hospitals of Alborz University of Medical Sciences. In this study, HCWs (health care workers) were evaluated for mental health disorders in quantitative and qualitative studies. The research tools were evaluated and selected before the study. A quantitative study was conducted to evaluate participants using the Depression, Anxiety and Stress Scales (DAS), Perceived Stress Scale (PSS), Posttraumatic Stress Disorder (PTSD) questionnaire, and Stigma questionnaire.

In the qualitative study, the thematic approach was used for data analysis .

Quantitative studies were conducted online and qualitative studies were done in the form of face-to-face interviews. Diagnostic and therapeutic interventions were also performed online and in person.

Sampling

The study was conducted at all educational hospitals of Alborz University of Medical Sciences and with the participation of health care workers who were involved in treating COVID-19 patients. Online questionnaires were provided to the staff and 892 HCWs participated in the quantitative study. The qualitative study was performed by selecting 20 HCWs from 2 hospital centers and interviewing them.

Inclusion and Exclusion Criteria

Participants in the study were health care workers who worked at Alborz University of Medical Sciences educational hospitals during the COVID-19 epidemic. Their participation was voluntary .

Data Collection

Data were collected by filling out online forms of the questionnaire by HCWs. Also, the qualitative study was based on interviews with a number of participants.

Procedures

1. The Site

The study was conducted at all educational hospitals of Alborz University of Medical Sciences, Iran.

2. Selection of Study Areas:

All educational hospitals of Alborz University of Medical Sciences were considered in this study. For the qualitative study, 2 large hospital centers were selected .

3. Overall Study Design:

After conducting the quantitative and qualitative studies, diagnostic and therapeutic interventions were performed online by selected psychologists and psychiatrists of the university. The second phase of the project will be implemented 6 months after the first phase and in the form of a cohort study after the necessary interventions.

Scales

1. The Depression, Anxiety and Stress Scales-21(DASS-21)

The DASS questionnaire is a 42-item questionnaire used to measure depression, anxiety, and stress. The scores obtained from the subscales multiplied by 2 are calculated to obtain the final number. The initial diagnosis is made based on the defined cutoff. Reliability and validity of this scale has been evaluated among the Iranian population and found to have acceptable concurrent validity in all 3 subscales. In one study, Cronbach's alpha for depression, anxiety, and stress on a group of Iranian general population was 0.93, 0.90, and 0.92, respectively (2-4).

2. Posttraumatic Stress Disorder- An 8-Item Questionnaire

It is essential to use a simple tool that has good psychometric properties in the field of trauma caused by environmental factors. Posttraumatic stress disorder, an 8-item, questionnaire, was evaluated by Hansen et al. The Cronbach's alpha in various traumas was 0.83, 0.84 and 0.85, respectively. Three domains were related to PTSD (intrusion, avoidance, and hyperarousal) are examined by 8 items (5, 6).

3. The Perception of Stigma Questionnaire (Adopted From the HIV Stigma Scale)

The questionnaire is based on Stigma perception of participants based on theoretical domains, including stereotypes, discrimination, shame, and social isolation. The questionnaire used in this study is a modified 22-item form of the Stigma-related questionnaire for HIV patients.

Each has a 5-point Likert scale. Cronbach's alpha was 0.82 and 0.81 for its 2 subscales (7, 8).

Ethics

The ethics committee of Alborz University of Medical Sciences, Iran, has approved this study. (IR.ABZUMS.REC.1399.011, date: 06-04-2020).

Analysis

All analyzes were done using SPSS software version 16. The normal distribution of continuous variables was assessed using the Kolmogorov-Smirnov test. Multivariate logistic regression analysis was used to determine the associated factors of domains among HCWs. A p value < 0.05 was considered as statistically significant. In qualitative study, data analysis was based on open and axial coding and after implementing the code, it was done by MAXQDA software.

Discussion

Following the outbreak of COVID-19 in December 2019, we have witnessed the global spread of this disease.(9) In Iran, on February 20, 2020, the first reports of the spread of COVID-19 to Iran were published, and the disease spread to all parts of Iran in a short time thereafter.(10) The Ministry of Health of the Islamic Republic of Iran, despite many economic constraints, continued to fight against COVID-19 from the very beginning, taking advantage of all its capacities from primary health care to hospital levels.(11)

On the advice of experts, along with efforts to control the disease, from the very beginning, attention was paid to the mental health of the general public, especially health care workers.(12) Also, special attention was paid to disorders such as anxiety, depression, sleep problems, and stigma as common problems during epidemics.(13) Using the experiences of mental health care in the early stages of COVID-19 pandemic can be helpful in continuing to fight the disease. (14) This is especially important in critical situations related to COVID-19 disease. In this situation, sometimes the use of different methods and the all available facilities, including human resources and other capitals, leads to the formation of different experiences (15). An example from other sources in this field can be the attention to the effect of social capital on improving the mental health of HCWs. This can be effective in the case of Iran with good reserves of this capital (16).

Improving the mental health of HCWs who are involved with COVID-19 can be done at the individual and organizational levels. Building a sense of trust among them, raising public awareness about stigma and trying to reduce it, and providing social support are the most important tools available to improve HCWs' mental health (17).

Alborz province, with a population of more than 2.7 million, is one of the densely populated provinces of Iran. Due to the special conditions of this province, including its geographical proximity to the Iranian capital and the existence of many factories and industrial workshops around it, people with different ethnic backgrounds live in this province. On the other hand, 3.1% of the province's population are immigrants from neighboring countries, such as Afghanistan, Iraq and Pakistan (18). In the early days of the spread of COVID-19 in Iran, Alborz province was one of the provinces with the highest prevalence and most deaths due to this disease among all provinces of Iran (19). Different hospitals in the province welcomed patients with or suspected COVID-19 in various internal and infectious wards, and the intensive care unit. As in many countries, health care workers (HCWs) in these centers also faced many mental health problems (9).

To control the situation in this field, from the very beginning of the spread of the disease, the following measures were taken to improve the mental health of the medical staff. First, a special HCWs clinic was set up at one of the main hospital centers for patients with COVID-19, which was open daily. This special clinic continued its daily activities, even during the New Year holidays in Iran. In these special clinics, a team of psychiatrists and clinical psychologists provided HCWs with appropriate counseling and treatment services .

The second step in this direction was to provide online counseling to answer HCWs' questions about the mental health problems of patients with COVID-19 due to the evidence of the effectiveness of this approach (20). Whenever there was a need to complete diagnostic or

therapeutic measures, and also during more complex counseling, a psychiatrist and a psychologist were ready to provide relevant psychiatric services in person. The experts, with full personal protective equipment (PPE) provided services in the inpatient wards of patients with COVID-19. The hotline, which provided HCWs counseling directly from a psychiatrist or psychologist, was designed to increase mental health coverage for HCWs.

Also, to identify and diagnose mental health disorders among HCWs, online screening of mental health disorders was performed extensively among all staff providing services to patients with COVID-19 in all hospitals of Alborz University of Medical Sciences. In this online screening, participants were asked to provide voluntary contact information after participating in the screening, so that if needed, subsequent diagnostic or therapeutic procedures could be performed by selected psychiatrists and psychologists with appropriate experience in the field .

Also, in a qualitative multicenter study, the mental health needs assessment of the staff in a study was conducted by interviewing 20 HCWs who worked in different departments of several hospitals, including isolated wards and intensive care units, and included various occupational groups such as physicians, nurses, and paramedics. A measure was taken to assess the mental health services needs, so that the required services could be provided at different levels. Among the issues highlighted by HCWs were problems with PPE, problems with long-term hospital isolation (eg, restrictions on finding a suitable place to rest), high work pressure, and stigma. They also emphasized the need to obtain specialized information on COVID-19, especially based on the native conditions of the patients under care. From the personnel's point of view, the existence of a clear order in the performance of duties and separation of responsibilities, and the participation of officials to facilitate matters were promising points in the fight against COVID-19. "There are many problems, but the support and efforts of the hospital officials are very encouraging. It gives a sense of companionship".

Accordingly, an interdisciplinary and specialized book with the target community of all professionals involved in the care of patients with COVID- 19 was prepared in a short time, which was introduced as the first specialized university book on COVID-19 in Iran (21).

Other intervention measures to reduce stress during the COVID-19 crisis on HCWs include holding "cognitive counseling" sessions as part of a research project by a clinical psychologist to reduce anxiety and stress among staff. The effectiveness of this method, which is aimed at preventing and treating mental health disorders of HCWs, is being investigated.

Limitation

Much of the initial protocol study was conducted at the height of the early COVID-19 epidemic. Due to the

maximum effort for the short duration of some interviews, especially in qualitative studies, there is a possibility of limitation in some evaluations. This requires similar studies at the time of relative control of COVID-19.

Another limitation of the study was the limited access to individuals who could participate in the project.

This is especially important given the multicenter nature of most protocol-related studies. For this reason, the study was conducted with a smaller number of executors than the initial predicted program.

Conclusion

A series of coherent measures have been taken to prevent, screen, and treat mental health disorders of staff who provide services to patients with COVID-19 at Alborz University of Medical Sciences in Iran in the recent past. This process is continuing to achieve the best possible result. While there are various concerns about the continuation of the COVID-19 situation in the near and distant future (22), the results of these measures need to be continuously evaluated, which is being planned and implemented. Given the recent experience of this pandemic, we hope that the results of these measures will be used as a guide for other professionals and academic and hospital centers in similar conditions to effectively control the disease and care for the mental health of HCWs.

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Conflict of Interest

The authors declare no potential conflict of interest.

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