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## Short communication

## Psychological crisis intervention during the outbreak period of new coronavirus pneumonia from experience in Shanghai

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## ABSTRACT

Since the middle of December 2019, human-to-human transmission of novel coronavirus pneumonia (NCP) has occurred among close contacts. At the same time, greater attention should be paid to psychological crisis intervention (PCI) among affected populations, for the timely prevention of inestimable damage from a secondary psychological crisis. PCI has been initiated via remote (telephone and internet) and onsite medical services to help medical workers, patients, and others affected to overcome any psychological difficulties. This paper outlines experiences based on the work of the Shanghai Medical Team.

## Introduction

The outbreak of new coronavirus pneumonia (NCP, also called COVID-19) since January 2020 is a sudden public health crisis, which spread from the city of Wuhan, China, to the whole country within a month, posing serious threats to lives. In the current epidemic situation, psychiatric institutions have already implemented the protective requirements for infectious diseases based on the fifth edition of the "New Coronavirus Pneumonia Diagnosis and Treatment Plan". During the outbreak period of NCP, psychological crisis intervention (PCI) is urgently need for all affected, including patients, medical staff, close contacts, people in affected areas, as well as the general public (Zhu et al., 2020).

In recent years, there has been a number of public emergencies in China, such as the severe acute respiratory syndrome (SARS) in 2003 (Lau et al., 2006), the natural disaster of Wenchuan earthquake in 2008 (Chen et al., 2020), and the human avian influenza A (H7N9) virus infections in 2013 (Jiang et al., 2019). Based on past experience, a large number of people will suffer from mental disorders soon after these unexpected events. Among them post-traumatic stress disorder is the most common illness (Mak et al., 2010). If medical care is delayed, affected persons may suffer inestimable damage caused by the psychological crisis.

## Guiding principles

Based on the "Guidelines for the Psychological Assistance Hotline during the Prevention and Control of New Coronavirus Pneumonia" issued by the State Council's Joint Prevention and Control Mechanism for the NCP epidemic, psychiatrists in psychiatric hospitals and psychological departments in general hospitals have major responsibilities to ensure psychological assistance in response to the outbreak (Chinese Society of Psychiatry, 2020).

The basic principle of psychological care during the NCP outbreak is to incorporate PCI into the overall deployment of epidemic prevention and control. The main premise of PCI is to minimize psychological damages and provide timely assistance to the prevention and control of the epidemic. Under the condition of strict prevention of NCP infections among medical staff, the implementation of PCI must follow rigorous guidelines, in order to minimize the risk of infections among psychiatrists and psychologists, and to reduce their exposure to stress and trauma.

## Organization and deployment

Current PCI efforts are managed by each provincial, autonomous regional, or municipal government in response to the joint prevention

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and control efforts for the NCP epidemic, with organizational and financial guarantees. This work was initiated by the Chinese Society of Psychiatry, with a team of experts established to organize intervention efforts and provide technical guidance (Chinese Society of Psychiatry, 2020). The management of PCI efforts is being carried out under the unified coordination between the Ministry of Health and Health Administrative Department in Shanghai, because the strongest medical resource is reserved in Shanghai.

The Shanghai Medical Team dispatched to Wuhan is a major component of the national medical response team. On January 28, the first four psychiatrists were dispatched to Wuhan after a 3-day NCP-specific skill training. The group established a PCI department in the Tongren Hospital of Wuhan University, and set up a work schedule to provide assistance. Due to different populations being affected by the epidemic to different degrees, the psychiatrists identified high-risk populations on which to prioritize their efforts, in order to prevent extreme events such as suicide and impulsive behavior. They drafted the signs of psychological crisis and provided feasible methods, providing timely report to the leading group of the joint prevention and control of the epidemic situation. Thus, the ninth batch of the Shanghai Medical Team was dispatched with 50 psychological therapists on February 21, as a second team for providing of mental health support.

### Challenges and strategies

In the current epidemic situation, face-to-face psychological counseling service requires high standards for onsite isolation to minimize risk. At present, this service is only implemented for front-line medical staff who have not been infected. However, infected people may face more severe psychological crisis and secondary trauma after the disaster (Peng et al., 2010). Therefore, to ensure the ongoing provision of mental health services and reduce the risk of cross-infections, a remote consultation network is being developed and implemented by the Chinese government, where telephone or internet consultations can be carried out in a safe setting (see Fig. 1). The Shanghai municipal government has further employed third-party online platforms to deliver consultations and prescriptions. Patients who need onsite treatment or hospitalization will be recommended to choose a specialist agency near their home.

To improve efficiency and optimal use of limited medical resources, it is important in the initial stage to establish key target groups and set priorities accordingly. The guiding principles divide the population affected by NCP into 4 levels (see Table 1), and require the first-level

population to be the focus of PCI (Chinese Society of Psychiatry, 2020) (Ma et al., 2020). Psychiatrists and psychologists can then carry out assessment of the psychological state of target individuals in a more timely manner. The current PCI efforts provide onsite services to first and second-level populations, and 24/7 real-time remote (telephone and internet) psychological support to third and fourth-level populations.

### Further perspectives

The two-pronged approach (onsite and remote) outlined above is necessary to implement effective PCI efforts, at the same time minimizing risks of cross-infections in the epidemic situation. However, there are substantial shortcomings with remote consultation measures, because it lacks medical history data, psychometric data, body language, and effective follow-up observation. Remote psychological consultations services, therefore, cannot replace face-to-face onsite services. The present arrangement should only be used as temporary emergency backup in exceptional circumstances such as the current NCP outbreak.

### Contributorship statement

XJ wrote the paper with LD. YZ, HJ, LL and DY collaborated in the writing editing of the manuscript. LT polished the English language. WJ proofread the manuscript. All the authors contributed reviewing the final version of the manuscript.

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### Declaration of competing interest

The authors have no conflicts of interests.



Fig. 1. Psychologists unite to help front-line medical workers at Wuhan City No. 3 Hospital, (A) onsite and (B) remote consultation services. [Photo/the Xinhua News Agency].

**Table 1**  
Populations affected by NCP divided into 4 levels.

Level	Population
1	Patients with severe symptoms of NCP, front-line medical staff, CDC researchers or administrative staff
2	Patients with mild symptoms of NCP, close contacts, suspected patients, or patients with fever who come to hospital for treatment
3	People related to the first and second-level population, such as family members, colleagues or friends; rescuers, such as commanders, administrative staff, or volunteers
4	People in affected areas, susceptible groups, or general public

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## Supplementary materials

Supplementary material associated with this article can be found, in the online version, at [doi:10.1016/j.psychres.2020.112903](https://doi.org/10.1016/j.psychres.2020.112903).

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