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Establishment of Online Platform for Psychological Assistance during a Public Health Emergency

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Abstract: The Coronavirus Disease 2019 (COVID-19) is raging worldwide, seriously threatening the public's mental health. Online platform for psychological assistance integrated various sources to promote the public's mental health. This article, using the Mental Health Service Platform at Central China Normal University, Ministry of Education (MOE-CCNU-MHSP) as an example, aims to describe the experience of building an online platform for psychological assistance in a public health emergency and discuss the further development of the online mental health service platform so as to provide suggestions to enhance online psychological service delivery.

Keywords: Public health emergency; online psychological assistance; coronavirus disease

1 Introduction

On March 11th, 2020, the World Health Organization (WHO) declared the Coronavirus Disease 2019 (COVID-19) a pandemic [1] and by April 30, 2020, COVID-19 had infected 3,090,445 people with 217,769 deaths across 213 countries, areas, or territories [2]. At this writing, the pandemic continues to threaten the physical and psychological well-being of people world-wide. Millions are experiencing some level of panic, felt-helplessness, psychological stress and even trauma [3,4]. Prompt, accessible online psychological intervention is a preferred intervention [5] in a situation such as this. It minimizes the human-to-human transmission of the virus, is not restricted by time and space [6], and mounting evidence suggests that online psychological services are as good as similar, face-to-face services [7–11]. Therefore, in response to pressing psychological issues caused by the pandemic, the National Health Commission of China (NHCC) published several guidelines for establishing psychological assistance hotlines throughout the country [12]. Under their guidance, more than 400 psychological hotlines were established in Mainland China in just a few weeks.

But the professionalism and capacity of these 400 hotlines varied widely. Consequently, we aimed to integrate available resources to build a nation-wide and professional psychological aid platform, i.e., the Mental Health Service Platform at Central China Normal University, Ministry of Education

(MOE-CCNU-MHSP), which is referred to throughout this article as "the platform." The platform is funded by the Ministry of Education of the People's Republic of China (MOE) and based in the School of Psychology at Central China Normal University (CCNU), Key Laboratory of Adolescent Cyberpsychology and Behavior, Ministry of Education (MOE-KLCB) and Key Laboratory of Human Development and Mental Health of Hubei Province (KLMH). The MOE-CCNU-MHSP brings together nearly 2,000 professional mental health counselors and over 200 supervisors from more than 1,200 universities and institutions in China to provide high-quality, free psychological assistance to the public in China and overseas Chinese 24-7. This article describes the experience of building this online platform for psychological assistance in a public health emergency and draws from that experience to provide suggestions to enhance online psychological service delivery.

2 Components of the Online Platform for Psychological Assistance

Although online psychological assistance has not been clearly defined, online counseling, a similar construct, is defined as "a mental health intervention between a patient (or a group of patients) and a therapist, using technology as the modality of communication" [13,14]. We distinguish online psychological assistance from online counseling, because it is provided as a free, and mostly one-session service to the public, via a well-organized platform. The key elements of this construct include: (1) counselors who provide psychological assistance and (2) help-seekers who need help; (3) channels for communication between counselors and help-seekers; and, (4) a management system to oversee an intervention infrastructure. It should be noted that the MOE-CCNU-MHSP provides psychological assistance services according to the counseling model. We practice some key elements of counseling, such as problem-solving, reflection of feelings to make it compatible with hotline. However, to guarantee the public's comprehension, we used the lay term psychological hotline. Therefore, for the purpose of this article, "psychological hotline" and "psychological assistance" refer to the services provided by the MOE-CCNU-MHSP.

Online psychological assistance requires a well-operated administrative system. Following the Guidelines for Psychological Assistance Hotline during the Pandemic (first draft) [15] issued by the Clinical Psychology Registration Work Committee of the Chinese Psychological Society (CPRWC-CPS), the MOE-CCNU-MHSP runs under the guidance of an expert committee which oversees an execution group that is responsible for the routine management. The expert committee ($N = 13$) consists of mental health professionals (clinical psychologists, social workers, psychiatrists, etc.) who are charged with making decisions and plans for the platform.

The execution group is divided into five sub-groups: a *coordination team* (coordinating between sub-groups and handling public relations, $N = 33$), a *counselor management team* (selecting counselors and organizing professional supervision and training, $N = 28$), a *counseling process monitoring team* (designing and optimizing workflow, developing measures for assessing counseling outcomes, implementing ethics management and collecting counseling-related data, $N = 14$), a *general management team* (providing pre-service training for counselors, collecting and solving general problems, $N = 11$), and a *technique service team* (solving technical problems and communicating with technique provider, $N = 15$)[1]. Through the concerted efforts of the five teams, the platform has established a set of rules and regulations regarding the counseling process, working standards, supervision, training, crisis intervention,

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[1] The members of the expert committee come from the Clinical Psychology Registration Work Committee of the Chinese Psychological Society (CPRWC-CPS) and the Clinical and Counseling Psychology Specialized Committee of the Chinese Psychological Society (CCPSC-CPS). And the execution group consists of current graduate students and faculty through recruitment at the School of Psychology at Central China Normal University (CCNU). The members of this group rotate shifts based on each groups' assignments. It is worth noticing that the staff, counselors, and supervisors started as volunteers in the first place and provided free services. However, because the platform is funded by the MOE, they are offered an allowance based on their working hours.
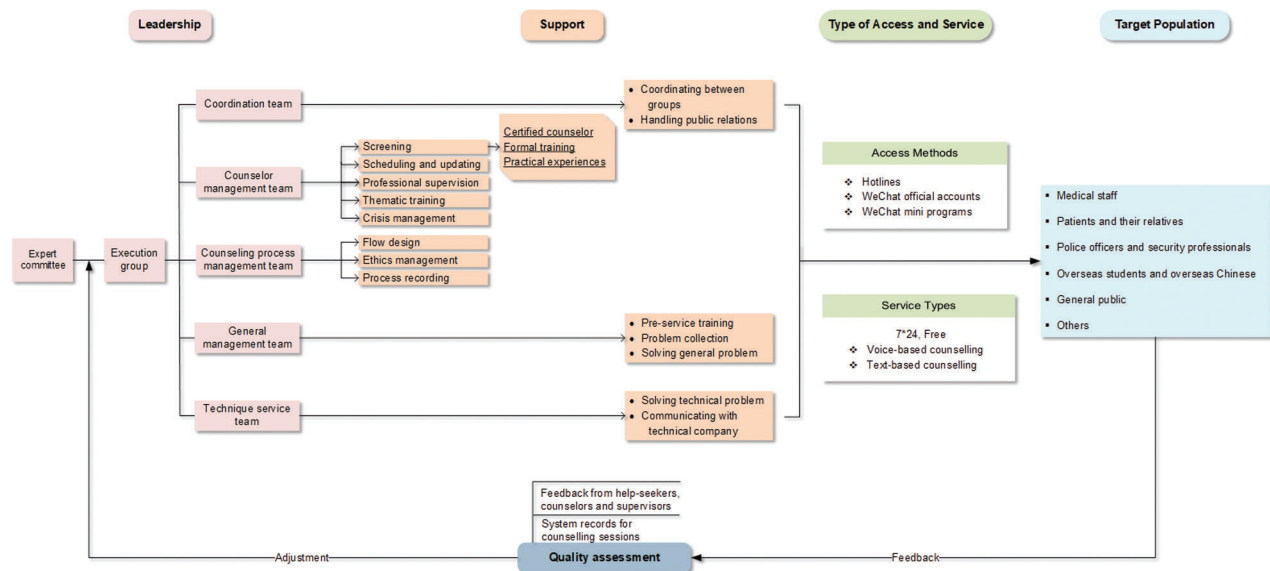
Figure 1: Framework of the Mental Health Service Platform at Central China Normal University, Ministry of Education

the regular meeting, the daily and monthly report, ensuring the efficient and standardized operation of the platform. A more detailed overview of the project's structure and operations is shown in Fig. 1.

3 Functions of the Online Platform for Psychological Assistance

The main function of the MOE-CCNU-MHSP is to provide psychological assistance, which is offered in two ways: voice-based counseling and text-based counseling. Help-seekers can access those services through three channels: the hotline, WeChat official accounts, and WeChat mini program that is an application that does not require download or installation.

Before clients receive services, the platform informs them by either audio or written instructions about: (1) the length of a session (under 30 min); (2) personal information that is collected and how it will be used, and (3) confidentiality and exceptions to confidentiality. Clients then are connected to a counselor if they consent to these conditions. The process will be completed in minutes. After each session, help-seekers receive a follow-up questionnaire to assess the session. The questionnaire consists of 3 items using a Likert 5-point scale (I think my counselor understands me", "I think this conversation is helpful" and "I am satisfied with this conversation") and an open question (any other feedback on the session). The psychological aid is a one-time service, and help-seekers will be assigned a new counselor if they seek services again.

A secondary role of the platform is to use data about the characteristics and psychological needs of help-seekers to inform governmental decisions about mental health interventions. For example, because the demographics of the help-seekers can inform future mental health service delivery, it is useful to know that the general public and students (the platform does not limit the grade of students) called the most (N = 3,674, 30.16% and N = 2,451, 20.12% respectively), followed by COVID-19 patients and their relatives (N = 520, 4.27%), while the proportions of calls from the frontline medical personnel, and other frontline personnel were the least (N = 138, 1.13% and N = 195, 1.60% respectively; see Fig. 2).

According to the *2019 National Statistical Bulletin on the Development of Education* [16], there are 282 million students in all levels of academic education in China. At the end of 2018, there were 1,230 million medical personnel [17]. Yet, the authority has not counted the number of the frontline medical staffs. Based on the total number of students and medical personnel, it shows that, compared to the
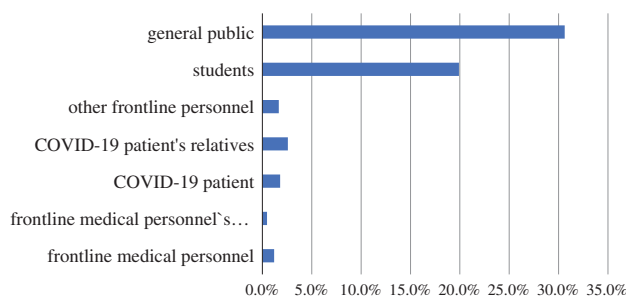
Figure 2: Proportions of different groups of help-seekers

overall populations, fewer students and medical staffs asked for help, which seems counterintuitive. Medical staffs have been facing enormous pressure due to a high risk of COVID-19 infection, inadequate protection from contamination, overwork, frustration, discrimination, isolation, exhaustion, patients who exhibit negative emotions, and lack of contact with their families. This has resulted in mental health problems such as stress, anxiety, depressive symptoms, insomnia, denial, anger, and fear [18]. This suggests the need to explore why that was the case and to then find ways to better provide psychological assistance to them. However, because we did not have the data of other psychological assistance platforms, the conclusion was drawn according to the database of the platform. More accurate analysis requires further research. It should be emphasized that we did not collect any category information of all the help-seekers.

4 Issues of Enhancing the Effect of the MOE-CCNU-MHSP

The online platform had several design features to maximize its effectiveness. The first design feature was that the psychological assistance provided by the platform should ensure compliance with ethical norms, particularly in ensuring that the counselors are competent, obtaining informed consent from help-seekers, and protecting the rights of counselors [19]. The second, was that standardized crisis intervention procedures would be employed. The third, a technical problem resolution plan would be developed to support the high-functioning platform. The final design feature was that it would have an evaluation and feedback system and improve the accessibility of the MOE-CCNU-MHSP.

4.1 Ethical Practice

It is imperative that counselors be competent to provide online counseling. To ensure this, the platform has set admission standards for counselors and conducted pre-service training and assessment. Counselors are expected to meet the following four criteria:

1. The applicant should have a professional qualification. For example, they might be registered counselors of the Clinical Psychology Registration System of the Chinese Psychological Society (CPRS-CPS) or a second-level psychological counselor issued by the Ministry of Human Resources and Social Security of the People's Republic of China;
2. The applicant should have attended at least 16 h of training in the ethics in mental health counseling, approved by the CPRS-CPS.
3. The applicant should have participated in special training on trauma treatment, psychological first aid and crisis intervention; and,
4. The applicant should have at least 500 h experience providing individual counseling.

Among 3810 applicants, 1727 met the above criteria. The selected counselors were trained and assessed in the following areas: online counseling skills, counseling ethics, work processes and regulations, crisis intervention programs, platform technical operations, etc. Counseling skills provided via the Internet

include the ability to communicate empathy via text [20] as well as positive reinforcement and encouragement [21]. Training was offered about 2 h every night, by registered supervisors of the CPRS-CPS, addressing a series of topics. All the counselors were asked to attend these trainings. Besides, the platform recruited supervisors registered by the CCPRS who provided counselors on duty with group or individual supervision. Group supervision was provided on a daily basis, and supervisors assisted counselors on duty. Additional individual supervision was also available for particular counselors.

Other ethical issues concerned (a) the need to obtain informed consent from help-seekers before they receive services, and (b) ensuring that the privacy of help-seekers is respected and that they are informed about exceptions to confidentiality. Previous research showed that the lack of perceived privacy and security during online chat sessions was the main concern reported by e-clients [22].

Finally, protocols were established to protect the rights and interests of counselors. For example, mechanisms were in place to protect the counselors' personal information. As well, they were given the right to terminate services when they received an explicitly harassing call.

4.2 Establishing Standardized Crisis Intervention Procedures

Standardized crisis intervention procedures contribute to protecting the rights and interests of both counselors and help-seekers. The crisis intervention system includes:

1. A mechanism to obtain help seekers' contact information. From a risk-management perspective, counselors need to be aware of the true identity and location of their clients should an emergency arrive [23]. The MOE-CCNU-MHSP makes that information available to counselors, making it easier for them to respond in crisis.
2. Clinical supervisors who are on duty every day to assist and guide counselors in dealing with a crisis.
3. A detailed crisis intervention plan: Counselors are trained in the plan and their competence in its use is assessed.

4.3 Establishing a Plan to Resolve Technical Problems that Might Arise

The hotline had several design technical elements that are important to highlight. Certainly, it is important that a successful program would have counselors with the requisite skills [24]. But it is also essential that the help-seeker and counselor have computers that can be reliably connected [25]. Therefore, the platform:

1. trained counselors in the use of the platform and the handling of technical problems to help them be proficient in the operation of the platform;
2. established a team of technical consultants who were available to solve technical problems as they may arise; and,
3. created a callback mechanism to enable the counselors to contact the help-seekers should the service be interrupted by technical problems.

4.4 Establishing the Evaluation and Feedback System

A second design feature was a mechanism to collect performance data and to use it in feedback. Feedback on counseling outcomes can help improve those outcomes [26,27] and that feedback from supervisors may enhance the competency of counselors [28]. Therefore, the platform collects data on both the help-seekers' and the counselors' perceptions of counseling impacts as well as the supervisors' evaluations of the counseling process.

4.5 Improving the Accessibility of the MOE-CCNU-MHSP[2]

The prevalence of mental disorder in China is high while the help-seeking rate is low [29]. This seems to have been the case as well for the psychological distress caused by COVID-19. In one study of the Chinese general public ($N = 1210$), 53.8% of respondents rated the psychological impact of the outbreak as moderate or severe [30]. Many factors preclude the public from seeking professional psychological help, such as limited access to service resources [31,32] and stigmatization of mental illness [33,34].

In order to improve the accessibility of the MOE-CCNU-MHSP, various publicity channels were utilized, with the help of government organizations such as the MOE, to inform people of the service. As well, people were provided with multiple ways to access services. For example, help-seekers can access the platform for psychological assistance through various WeChat official accounts, such as the MOE account "Weiyan Education," "Learning Power," "Healthy Wuhan," and "MOE-KLCB."

Help-seekers also had the option of either text- or voice-based services. Although text-based services have the important limitation of not allowing counselors to see and observe the help-seeker, it was still a popular option for the help-seekers which account for 44%. One reason may be that text-based counseling makes the help-seekers feel less exposed and therefore safer [22]. Moreover, when seeking help, Chinese clients feel stressful and worry about failing to be good clients [35]. Help-seekers feel more relaxed because text-based counseling can be terminated at any time and does not require an immediate response. Finally, fear of being exposed to others during online sessions was the main concern reported by e-clients [22]. Text-based counseling does not require clients physically present and is more preferred by people quarantined at home.

5 Summary of Experience of Platform Development

As of April 3rd, 2020, the MOE-CCNU-MHSP has provided psychological assistance to nearly 20,000 help-seekers; 264 of the contacts were emergencies required crisis intervention. Importantly, no ethical complaint has been filed, which may reflect the effectiveness of the platform's standardized management system and the implementation of the ethical guidelines and crisis intervention procedures. We have summarized some experience in establishing a service platform and hope to give some reference to our peer researchers and practitioners.

5.1 Striving for Government Support

The rapid development and establishment of the MOE-CCNU-MHSP depended on the authority's support. The government's credibility and the exposure of the platform was useful in recruiting enough human resources. The largest upgrade was to recruit personnel nationwide to support the development of the platform under the leadership of the MOE. In three days, the platform received applications from nearly 3,000 voluntary mental health counselors and over 200 supervisors from more than 1200 universities and other institutions across the country. Eighty two percent of the professionals came from universities, reflecting a strong sense of responsibility by Chinese universities, teachers, and students majoring in psychology.

5.2 Integrating Professional Resources

The establishment of the platform depended on support from the School of Psychology of CCNU, the MOE-KLCB, the KLMH, the CPRWC-CPS and Clinical and Counseling Psychology Specialized Committee of the Chinese Psychological Society (CCPSC-CPS). The School of Psychology of CCNU, the MOE-KLCB, and the KLMH, integrated various professional resources and supported high-quality

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[2] It should be emphasized that because we did not have relevant data on nationwide use of mental health services, the conclusions and questions regarding the accessibility, are based on the data and experience of the MOE-CCNU-MHSP.

social services on the basis of high-level scientific research. Based on the research at CCNU on cyberpsychology and counseling psychology, the experience of psychological assistance during major disasters such as the Wenchuan earthquake, and the online platform of the MOE-KLCB, an artificial-intelligence-media-integrated psychological assistance platform has been developed that has taken the lead in China.

5.3 Establishing an Efficient Operating System

As we already have noted, the platform established five teams, including coordination, counselor management, counseling process monitoring, general management, and technique services. Several regulations were formulated and implemented regarding the counseling process, working standards, supervision training, crisis intervention, regular work meeting, daily report and monthly report. Moreover, the management and service team consisting of nearly 200 persons ensured a standard, efficient and orderly operation of the platform in the case of a huge number of calls (thousands of calls during the peak period).

As well, the cohesion of the Chinese society has been a critical factor. Every time Chinese society has been challenged or faced with crises, its cohesion has increased in response [36]. The same has been true with respect to the COVID-19 pandemic. Facing the pandemic, everyone united and hoped to make a contribution. Therefore, there are so many mental health counselors and supervisors helping with the development of the MOE-CCNU-MHSP and providing voluntary counseling services. National cohesion is an important factor that promotes the successful establishment of the MOE-CCNU-MHSP.

6 Future Direction of the Online Platform

The timely mental health services offered by the platform have been adequate, efficient, and effective. However, we have become aware of several limitations that warrant attention.

First, by design, the depth of intervention is limited. Counselors' intervention skills need to be expanded and improved, with provisions for prolonging psychological assistance for those remaining in need of care well beyond the initial contacts. Again, by necessity, call times have been limited (generally 30 min or less) and the nature of the contacts preclude observation and information of any non-verbal behaviors, which further limits the depth of interventions [37]. One enhancement involves developing a rigorous indigenized one-session counseling skill manual that provides instructions in the most effective way to administer psychological assistance during the pandemic in a time-limited format. Addition of a caller-screening-system to the online platform would provide invaluable information for planning follow-up or continuous psychological assistance to callers in need, such as people with post-traumatic stress disorder. With the gradual unsealing of quarantine orders in various places, a combined model of psychological interventions, which integrates both online and offline support, can be helpful.

Second, the utilization rate of the platform is still somewhat low. A variety of reasons possibly account for the observed underutilization and the concomitant low public help-seeking rate, including a lack of understanding of one's psychological state [38], the pervasive stigma often associated with a psychological illness [39], denial of the need of treatment [32] and/or a lack of knowledge of or access to help services [31,32]. Therefore, the platform needs continuous improvement, by incorporating diverse methods such as psychoeducation, text and video to raise the public's mental health awareness, draw the public's attention, deepen their understanding of mental health, and reduce the stigma of psychological help-seeking so as to promote more active help-seeking behavior.

Third, although the current system is based on the Internet (which is suitable for a wide array of intervention options), the platform still follows the traditional "one-to-one" practice, wherein counselors work with only one individual in a given session. One possible solution is to upgrade the platform's capacity to incorporate different, and various intervention practices. Because the number of people

infected by the pandemic is immense, the one-to-one practice can hardly meet the majority's needs. Consequently, we are actively working on integrating artificial intelligence technology and Internet-based self-help psychological interventions. Artificial intelligence technology has great potential for serving as online triage, backed by an Internet-based self-help intervention that can diagnose callers with mild symptoms and offer suggestions accordingly. Moreover, we are simultaneously creating available group counseling programs, while assuring the efficacy and efficiency of our services.

Last but not least, in the long run, with the gradual slowdown of the epidemic, the MOE-CCNU-MHSP plans to adjust the status of current services according to the psychological needs of the public and provide a long-term service in order to better support the mental health of the public after the pandemic.

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