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Significance of timely responses to mental health crises during unprecedented societal and global changes using an agile, empathic and user-centred digital approach: lessons from the Hong Kong experience

Stephanie Ming Yin Wong [1], Eric Yu Hai Chen[2]

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¹Department of Social Work and Social Administration, The University of Hong Kong, Hong Kong, Hong Kong
²Department of Psychiatry, School of Clinical Medicine, LKS Faculty of Medicine, The University of Hong Kong, Hong Kong, Hong Kong

Correspondence to
Dr Stephanie Ming Yin Wong;
myswong@hku.hk

INTRODUCTION

The global society has been facing a large number of unprecedented large-scale collective threats in the past years.[1 2] We have seen the consequences of the Turkish earthquake, the Russo-Ukrainian War, the ongoing tension and military events in the Middle East, and other social unrest, protests and strikes across populations, the effects of which are notwithstanding other perpetual humanitarian, refugee and hunger crises not reported in the media. Each of these events can induce significant mental health burdens.[3] Importantly, the wide-reaching spread of information via the Internet today means their impact is no longer restricted to specific affected population but global. With trends of deteriorating mental health seen worldwide,[4] the anticipated increase and intensification of population-level stressors is of concern. The question of what researchers and healthcare providers can do during such times of change is critical.

Since the COVID-19 pandemic, the possible benefits of telemental health in improving service accessibility and reducing costs are clear.[5] Despite increasing digital literacy and smartphone penetration rates across populations, however, the treatment gap for mental disorders remains substantial.

Of note, barriers to professional help-seeking can be even greater during times of crises. The impact of limited service availability and accessibility on reduced service utilisation amid armed conflict situations has been noted.[6] While the introduction of telemental healthcare in these settings can

SUMMARY BOX

⇒ The global society has faced an increasing number of unprecedented large-scale collective threats in the past years. With trends of deteriorating mental health seen worldwide, further action is urgently needed to ensure appropriate services can be delivered in a timely manner.

⇒ Despite the rise of digital psychiatry, treatment gaps remain substantial. Improvements in the accessibility of service but not acceptability can offer little to reduce the barriers to help-seeking.

⇒ This article describes the experience of the development of a novel low-cost, empathic, and timely online tool incorporating user-centred design and research in the provision of first-line mental health support amid ongoing population-level crises.

⇒ Key elements are identified and highlighted for application in future research and practice across settings, including in population screening, clinical practice, as part of humanitarian aid, and in resource-limited and conflict settings.

⇒ We believe the experience can inform the development of a new generation of engagement and intervention tools.

improve accessibility to treatment, the lack of trust in authority figures and concerns about privacy subsequent to such events can further delay treatment among those with needs. As we have seen in Hong Kong during the protracted period of social unrest in late 2019 and the COVID-19 pandemic from early 2020 to mid-2023, similar to other contemporary social conflicts, young people bore the greatest impact[6 7]—the group that is also most vulnerable to the development of mental disorders and least likely to seek help.[8 9] Simply applying traditional approaches to online

platforms without considering the needs of individuals in the community can offer little in reducing the barriers to understanding and treatment.

REIMAGINING ONLINE-BASED SUPPORT TO ADDRESS MENTAL HEALTH NEEDS: THE FLOW TOOL EXPERIENCE

In view of the excessive mental health needs at the time, we thought it was necessary to develop a novel tool that not only can evaluate the mental health needs of the population, but one that is also highly accessible and can offer some degree of first-line self-help empathic support to individual users.

With preparatory qualitative interviews conducted with different stakeholders (including those arrested, psychiatrists, psychologists, social workers and those not in the mental health field), in-depth exploration of the different perspectives and sentiments on local forums and social media platforms, and feedback gathered concerning user experience over an intensive 3-week period, we developed and launched the 'Flow Tool'.[10–13]

Since its launch in February 2020—a few weeks after the social unrest and local outbreak of COVID-19, the Tool has accumulated 20 740 responses in just 2 weeks, with 10 110 completing the full version of the tool.[11] More than 70 000 responses have since been recorded. Among those who completed the Tool and provided feedback, 81.4% thought it was able to capture their feelings (ie, 4–5 star ratings, 5 being the maximum), 88.3% thought it increased awareness of their mental health needs and possible coping strategies, and over 90% thought it was friendly and easy to use. Importantly, over half (62.8%) reported the tool had increased their intention in taking action on their mental health. Its widespread acceptance further resulted in multiple invited sharing sessions for social workers and teachers regarding its use with clients in need. Several key elements were considered crucial in the success of the tool.

Empathic responses, transparency and personalisation of experience

While consisting of standardised measures of major symptoms (eg, the depression subscale of the Depression, Anxiety and Stress Scales and the Trauma Screening Questionnaire), the Tool differed from typical surveys in that it was largely empathic, conversational and personalised.

The tool begins with an overall introduction (ie, that we understand times can be tough, but understanding your own mental health conditions is important to undergo and thrive under such circumstances)—in order to offer users a sense that their feelings are acknowledged, that this online 'space' is safe, and an expectation of what they will experience throughout the process (ensuring transparency) (figure 1). We are clear that their confidentiality is protected by not asking for their personal information, which was particularly sensitive at the time and is often a major barrier to help-seeking. To ensure users are comfortable and engaged, we incorporated minimalist line-art illustrations by an artist popular among locals into each section of the tool, all of which were placed in the space after questions to avoid potential priming of responses. After every subsection, we also included phrases such as *'Are you still doing okay? We can take it slow. Just proceed whenever you feel comfortable'* in Cantonese—the mother tongue of most locals—to ensure users feel 'heard' and respected, likened to those expected in psychotherapies and psychiatric interventions.

Respect for autonomy

Providing users with a sense of autonomy was also considered crucial. As in other services today, individuals have the right to choose what types of service they wish and do not wish to use.[14] As such, we thought it would offer a more optimal experience if users were given the options to choose how much of the tool to complete, as well as how much information to receive. In this tool, after completing the first section (which includes measures

Figure 1 Example of user interface.

User journey
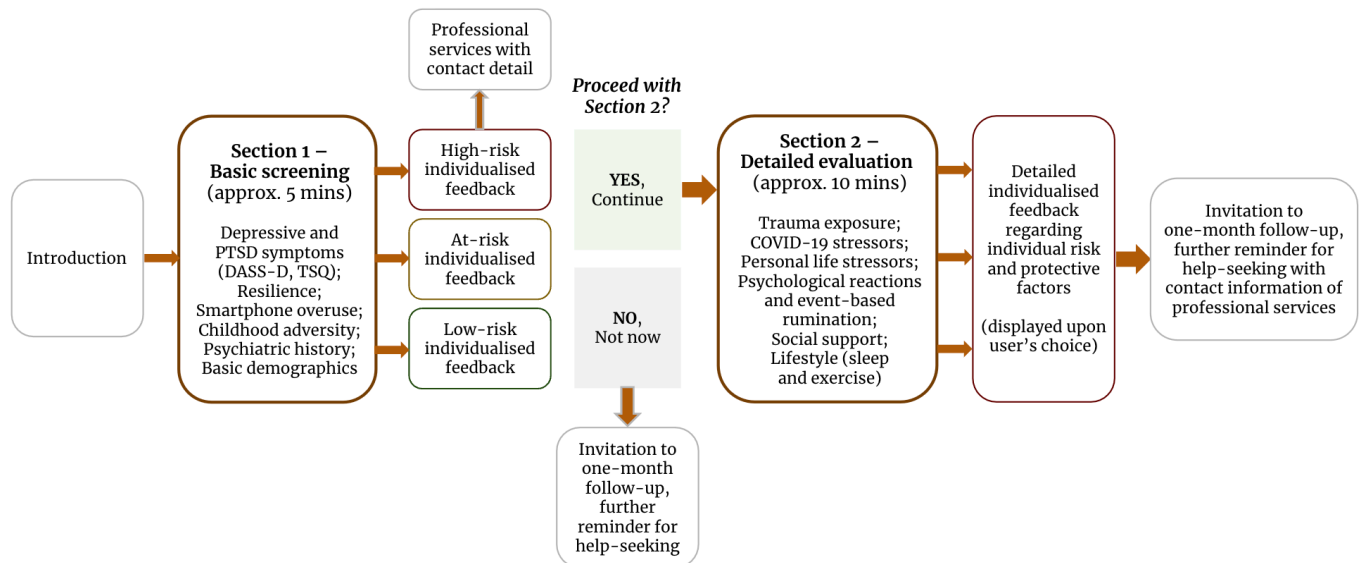
Figure 2 User journey in the Flow Tool. DASS-D, depression subscale of the 21-item Depression, Anxiety and Stress Scale; PTSD, post-traumatic stress disorder; TSQ, Trauma Screening Questionnaire.

of depressive and PTSD symptoms, brief questions on resilience, smartphone overuse, and background factors), we provided users with the option to either (1) immediately view their individualised reports (including figures showing their current symptom levels and potential trajectory of their condition generated based on our team's data, and suggestions for service use according to their symptom severity) or (2) continue with section two, which consists of more detailed questions about their experiences of different stressors and other risk and protective factors for generating a more comprehensive individualised feedback. All users were also given the option to 'check-up' on their conditions after 1 month.[12] Since no personal data were collected, we provided users with step-by-step procedures, together with a personalised computer-generated code that allows their baseline data to be retrieved at follow-up. A summary of the overall user journey experience is visualised in figure 2.

Timeliness, low cost and agility
To ensure the tool can be launched in a timely manner and is adaptable to changing circumstances, the use of a low-cost approach was necessary since the process of funding applications can often be lengthy and can also be difficult in some settings. We, therefore, opted for an online survey platform (Qualtrics) via our institution instead of developing a smartphone app in constructing the tool, which not only reduces the time of development and flexibility in its content and design from the researcher and clinician's perspective, but also improves accessibility from the user's perspective.

APPLICATION OF THE TOOL IN OTHER SETTINGS
Our original intention in developing the tool was to offer some support to any individual we could reach via our network. The ability to engage such a large number of users even at a time of overwhelming distress and distrust—half of which being under the age of 25, suggests some uniqueness about the tool that made it appealing. Indeed, such a design could introduce some bias to the data: we did engage a group of individuals with above-average symptoms of depression and PTSD.[10 11] Nevertheless, this also highlights the ability of the tool in engaging a more 'vulnerable' group who may otherwise not engage in traditional research and services.

CONCLUSION
Particularly in today's world of rapid technological advances and increasing global threats, to reach those with needs, a new generation of innovative approaches that can provide first-line mental health support and reduce barriers to help-seeking is needed. The snowball effect in the dissemination of the Flow Tool, the large number of community members reached, and the positive feedback received was never anticipated, but nevertheless highlighted the importance of incorporating elements such as empathic responses, individualised feedback, respect for autonomy, and consideration of the local context and needs in a timely manner into research and interventions. The lessons learned through this experience can guide the future developments of low-barrier digital tools not only in clinical and population settings, but as part of humanitarian aid and in other crisis situations.

ORCID iD
Stephanie Ming Yin Wong http://orcid.org/0000-0002-9535-9846

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