a significant evolution in the mental health care provided to young people.

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A. Danese is funded by the National Institute for Health Research (NIHR) Biomedical Research Centre at South London and Maudsley National Health Service Foundation Trust and King's College London.

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DOI:10.1002/wps.20931

Youth mental health care in a context of large-scale collective stress

The accelerating pace of technological and societal changes continues to impose unprecedented levels of challenges to mankind, and young people often bear the foremost impact. As well described by McGorry et al[1], globalization, climate change and technology are suggested to have incurred detectable burdens on youth mental health, and the COVID-19 pandemic has significantly added to this.

Among the different societies undergoing such challenges, Hong Kong represents a notable example where the COVID-19 pandemic coincided with social tensions, protests and unrest. The cumulative effects of these population-level stressors is only beginning to be recognized[2,3]. Symptoms of post-traumatic stress disorder (PTSD), depression and anxiety interact over time in complex manners, with the continuous unfolding of population-level distressing events aggravating outcomes. Available data suggest that the mental health of young people is being disproportionately affected[3].

In the wake of unforeseen population events, timely mental health initiatives are often unavailable. During the initial stages of an unexpected situation, interventions and research often struggle to re-orientate from their ongoing endeavours to attend to the new scenario, especially when the latter is unprecedented. There is also a "wait and see" mindset along with a hopeful anticipation that the stressor would be time-limited. As events evolve, the sense of fear and lack of trust can become another major impediment to early engagement and help-seeking.

In Hong Kong, the situation necessitated the rapid launching of simple yet engaging mental health self-help tools. A youth-friendly, locally-adapted and personalized tool was thus developed (Flow Tool, https://www.psychiatry.hku.hk/flow.html), in both Cantonese and English[2]. In-depth feedback from local young people during its development period ensured that the language and style of the tool could offer a "safe space" for feelings to be articulated. Meanwhile, discussions with clinical and research teams secured its capacity to capture sufficient information for offering individualized advice. Upon completion of the tool, areas of self-help were given to those with lower distress levels, and pathways to professional help-seeking (both online and in-person) were suggested for those with higher symptom levels. To minimize concerns about data privacy (which were particularly pronounced during crisis situations and among young people), the tool was anonymous.

Since its launch, over 70,000 responses have been gathered. Youth-friendliness, respect for confidentiality, and freedom of choice were considered to be crucial elements in successfully engaging young people who may not seek help otherwise. Data from the tool revealed high levels of depressive and PTSD symptoms as a result of the cumulative effects of COVID-19 pandemic, social unrest, and individual stressful life events[3]. Rumination about external events was identified as an important mediator between stress events and distress[3].

In the wake of intense ongoing population-level stress, interpreting heightened mental distress as an increase in "mental disorder" prevalence requires caution. The language of "symptom networks" as "reactions" to external "stressors"[4], with the possibility of transitions not only into "disorders", but also "post-traumatic growth"[5], may provide a more positive framework to support young people in distress. Particularly in a life stage of growing uncertainties and need for security, using a language which emphasizes not only intrinsic vulnerabilities but also the role of extrinsic factors, as well as the potential of the young person to regain control, can be important in instilling senses of agency and hope.

A safe physical space is particularly important during periods of uncertainty. In a city where space is difficult to come by, a new project where community "hubs" were designed for, and with, young people with mental distress was launched (*LevelMind*, https://www.levelmind.hk)[6]. As access to hubs was impeded by waves of COVID-19 pandemic, it became clear that additional online interventional services with high accessibility were needed. A free, anonymous online psychiatrist advisory service has since been launched (*headwind*, https://www.youthmentalhealth.hku.hk) and regularly serves over 100 individuals (mostly young people) every month to date.

To ensure that these initiatives are serving their intended purposes, timely evaluation is needed. Yet, the unforeseeable developments of population-level stress pose new challenges to the process of evaluation, where a significantly reduced turn-around time is demanded. In the context of limited time and resources, reverting to the simple measures of "pre" and "post" effects may be tempting. This should, however, be treated with caution, as the rapid evolution of societal stressors is expected to trig-

ger significant fluctuations in distress and symptoms in the population, which may mask the effects of interventions. The use of appropriate comparison groups would be particularly important for controlling for background fluctuations. The skillful use of online tools (both self-administered and interview-based), combined with more adaptive evaluation designs (e.g., judicious use of planned interim analyses, multi-arm/multi-stage design, adaptive randomization)[7] are allowing more efficient evaluations.

Looking back, the series of recent events may have disrupted roadmaps and imposed new demands in this rapidly changing youth mental health landscape. Nonetheless, effective and sustainable work for young people could be made possible with quick and careful adaptations. Youth mental health training should not be overlooked, as multi-disciplinary work involving youth workers, psychologists and psychiatrists, as well as the voices of young people themselves, are keys to success. Robust future-adaptability is crucial in the shaping of an apt youth mental health platform.

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DOI:10.1002/wps.20932

Youth mental health services: the right time for a global reach

Young people have been regarded as a predominantly healthy population group, possibly because of the relatively low prevalence of physical illnesses in this age range. This, however, is in stark contrast with the evidence concerning mental health problems: at no other time point in the lifespan do mental disorders constitute a larger share of disease-related burden than in the second and third decades. In fact, the early incidence and non-negligible persistence of these conditions have led experts to describe mental illnesses as "chronic diseases of the young"[1].

Despite the epidemiological evidence of early onset, mental disorders are typically detected only at later stages in life. To some extent, this delay is being addressed in recent years through innovative systems of youth mental health care. This set of services and strategies recognizes the needs and opportunities for prevention and clinical care from a developmentally informed perspective. As elegantly reviewed by McGorry et al[2], the case for *when* to act has been largely addressed in the literature: there are unequivocal benefits of investing in early intervention.

Equally relevant is the question of *where* action is most urgently required. Youths comprise up to one quarter of the world's population, but the geographical distribution of adolescents and emerging adults is not uniform across the globe. The vast majority of young people live in low- and middle-income countries (LMICs), where they constitute larger proportions of the population in comparison to high-income countries (HICs). In fact, even if we were able to eradicate 100% of mental disorders among 10 to 24 year-olds from HICs, this would translate into a decrease of only 15% in the overall global burden of mental disorders in this age range[3].

There is also the matter of *how*. Beyond the recognizedly similar needs of youth across the globe, there is an urgent call to enable tailored systems of care for youth mental health, which should move beyond a one-size-fits-all approach to more culturally and locally appropriated services. As a case in point, we here discuss challenges and potential opportunities of putting these strategies into practice in Brazil, a middle-income country that is home to more than 50 million youths.

Over the past three decades, Brazil has implemented one of the largest universal health care systems in the world. The publicly funded *Sistema Único de Saúde* (SUS) upscaled service coverage throughout the country, with an emphasis on the expansion of primary care. Despite remaining challenges in terms of disparities and coverage, tremendous progress has been achieved in improving the overall health of the Brazilian population[4].

As a consequence of multiple actions focusing on early childhood, Brazil surpassed the global targets of infant and child mortality reduction, being among the small number of nations to meet Millennium Development Goal 4. Importantly, this has been achieved while decreasing the inequalities among regions in the country. However, a similar advance in regard to the mental health of young people has not been achieved.

Evidence suggests that adolescents in Brazil do not frequently recognize primary care as a source of support for mental health problems, but rather rely on their own or on peer support[5]. Since physical health does not usually constitute a reason to have a regular relationship with primary care for the vast majority of young people, services are not typically designed or prepared to engage this age group. The majority of low-intensity primary care settings lack the resources required to address the developmental needs of young people, focusing mostly on younger children or older individuals. This represents an important challenge in terms of translating high-quality evidence-based models from HICs into real-world practice in LMIC environments.

For individuals with more severe clinical presentations, the SUS has implemented community-based centres (CAPS) for psychiatric treatment and psychosocial support/rehabilitation[6]. Distinct CAPS formats are still organized following a paediatric vs. adult model: paediatric services predominantly address the needs of younger children, while adult services focus on adult needs, without recognition of adolescence