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Review

Global priorities for improving access to mental health services for adolescents in the post-pandemic world

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Abstract

Although several mental health conditions have their onset during adolescence, a very small proportion of adolescents receive adequate evidence-based interventions. There are both demand and supply-side barriers to accessing mental healthcare. The problem has been further exacerbated by the COVID-19 pandemic, which disrupted the general life, health care services, and mental health of children, adolescents, and young adults across the globe. Despite multiple implementation challenges, interventions delivered in school settings and using digital health technologies can improve access to mental health care for adolescents, especially given the reverberations of the COVID era. While designing adolescent mental health programs, special emphasis needs to be on equity and trying to reach out to adolescents who need services the most.

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Adolescents, Mental health services, Access.

Introduction

Adolescence is a critical period in the lifespan. Many mental health conditions emerge during this period and account for almost half of the years lost due to disability in the age group of 10–24 years [1]. More than half of adult mental disorders have their onset before the age of 18 years and behaviors such as smoking, drinking, and illicit drug use often begin during adolescence [2–4]. Poor mental health is associated with greater risk of teenage pregnancy, HIV/AIDS, other sexually transmitted diseases, domestic violence, child abuse, motor vehicle crashes, physical fights, crime, and homicide [5]. Furthermore, in terms of psychosocial wellbeing, suicide is the third major cause of mortality among 15–19 year olds, accounting for 9.1% of total deaths in this age group [6].

Before 2020, adolescents already faced a growing mental health crisis, which was further worsened by the Coronavirus disease (COVID-19) pandemic. For much of the first two years of the pandemic, children, adolescents, and young adults could not attend schools for several months, interact with friends, participate in play or sports competitions, or interact in person with teachers and relatives. Many adolescents and their families faced difficulties related to housing, food security, finances, and access to social services [7]. COVID-19 infection, experiencing long COVID-19 symptoms, and the loss of loved ones further aggravated the crisis.

This narrative review aims to summarize the global literature related to access to mental health services, with a special focus on the COVID-19 pandemic. The review first highlights the access and treatment gap in adolescent mental health, summarizes the factors associated with poor access during the pre-pandemic and pandemic period, synthesizes findings related to the interventions to improve mental healthcare access with emphasis on the context of the COVID-19 pandemic, and lists the priorities to improve access to adolescent mental health services. As a definitional note, individuals in the age group of 10–19 years are classified as adolescents by the World Health Organization. However, a slightly broader age range of 10–24 years (adolescents and young adults) is considered in this review, in alignment with the categorization used by the Lancet commission on adolescent health and well-being [12].

COVID-19 and mental health

Across the world, youth experienced increased mental health challenges due to COVID-19. A meta-analysis that included 80,879 youth globally found that the prevalence of depression and anxiety doubled during COVID-19 compared to pre-pandemic estimates. The

pooled prevalence was 25.2% for depression and 20.5% for anxiety disorders, with higher rates for girls and older adolescents [8].

The impact of the pandemic has also been lasting. Repeat cross-sectional surveys from France, for example, reported increased prevalence of stress, anxiety, depression, suicidal ideation, and post-traumatic stress disorder at 15 months after the first lockdown among university students. Risk of poor outcomes was higher for females and nonbinary participants, as well as those with financial difficulties, presence of a chronic condition, history of previous mental health condition or COVID-19 infection, and social isolation [9].

These alarming statistics underline the need for prioritizing access to mental health services for adolescents and young adults in the post-pandemic world. Mental health services are "any interventions, assessments, diagnosis, treatment, or counselling offered in private, public, inpatient, or outpatient settings for the maintenance or enhancement of mental health or the treatment of mental or behavioural disorders in individual and group contexts" [10]. Access to mental health services can be defined as individuals receiving these services when they need them [11]. Before the pandemic, a small proportion of adolescents in the need of mental health services received them. COVID-19 led to further decrease in this proportion, resulting in a reduction in the access to services for adolescent mental disorders for many young people across the world.

The access gap

As demonstrated by several systematic reviews and reviews of reviews, adolescents need access to evidence-based interventions that can be delivered within and outside the formal healthcare system [13–15]. Despite the ever-increasing evidence-base, adolescents experiencing mental health issues have very low levels of access to mental health services. Approximately 70–80% of adolescents do not seek professional mental health care, even in high-income countries [16–18]. Even if they seek care, not all of them receive appropriate and adequate care. As an example, Australian national survey data found that only 11.6% children with mental disorders had sufficient contact with health services and received minimally adequate treatment [19].

Already a challenge, access to mental health services was severely affected by the COVID-19 pandemic. In a cross-sectional survey of adolescents from British Columbia, Canada, for example, large numbers of adolescents reported unmet need for mental health services: 70% of those with depression or anxiety, 55% of those with past-month drinking, and 60% of those with past-month cannabis use. The unmet need was higher among females and sexual minorities [20]. In the United States (U.S.), emergency department data indicated a 51% increase in the visits for suspected suicide attempts among adolescent girls aged 12–17 during the COVID-19 pandemic [21]. This indirectly highlights the lack of access to routine mental health services. As further evidence, in Australia, analysis of the mental health medicare data found a 6.2% increase in the use of mental health services among young people, but compared to the population level mental health burden this increase was relatively low [22].

What affects access to services?

One of the major challenges for adolescent mental health services is to link at-risk individuals with appropriate services. Rickwood and colleagues identified a lack of emotional competence, negative beliefs about help-seeking, and stigma as the key barriers to seeking help among adolescents [23]. The main facilitators noted in other literature include previous positive experiences with health professionals, emotional competence, and mental health literacy [24]. Two further barriers specifically related to help-seeking for adolescent self-harm are negative reactions from others related to confidentiality breaches and being seen as an "attention seeker" [24]. A recent systematic review reported similar findings with stigma being the most important barrier to seeking help. Negative attitudes and beliefs about mental health services and professionals were the next most prominent barriers. The factors that facilitated help-seeking were the trusted and strong relationships with possible gatekeepers (teachers, parents, doctors, health professionals, etc.) and prior positive help-seeking experience [25]. School closures and difficulty having a face-to-face interaction with health professionals during the COVID-19 affected access to mental health services by adolescents.

Paradoxically, adolescents who need psychological help the most are the ones who are least likely to look for it [25]. This could be possibly due to the high levels of emotional distress, reduced cognitive ability, self-blame, and difficulty in speaking to others. Structural barriers, such as cost of care and transportation, also play a role in help-seeking and access to care, although these barriers are more relevant for parents than adolescents [26].

There are also a range of contextual determinants acting at the organizational, community, public policy, and macro-environmental levels that affect access to care and utilization of services. Adolescents are more likely to utilize mental health care if they live in an area that is urban, is wealthy, has high accessibility of mental health care, has school-based health centers, and has established mental health screening programs [27]. Collaboration between care provider organizations and fee-for-service plans also improve access to care [27]. An

example of the organizational/health systems level barriers comes from the United Kingdom (U.K.). A report published by the Children's Commissioner in the U.K. in 2016 found that in the National Health Services, a large number of young people were turned away from the Child and Adolescent Mental Health Services upon referral. Many children were waiting a long time to be seen, and others were falling out of the system because they missed appointments and then had to be re-referred [17].

During the COVID-19 pandemic, a report by the U.S. Surgeon General identified youth with intellectual and developmental difficulties, racial and ethnic minority groups (e.g., American Indian, Black, Latino etc.), and LGBTQ + youth as particularly vulnerable and facing difficulties in accessing mental health services during the pandemic. Similarly, youth from low-income and immigrant households and those residing in the rural areas also faced significant challenges [7]. In Australia, Gao and colleagues found that the increase in the use of mental health services centered on areas with high socioeconomic status, while there was limited increase in use in areas with low socioeconomic status [22].

This inequality also appeared in other data. Perception about the need and provision of mental health services by policy makers and senior health officials played an important role in service provision. Purtle and colleagues found that in the U.S., 72% of agency officials perceived the pandemic as having disproportionately negative mental health impacts on socially disadvantaged youths. However, only 15% of the officials perceived serious negative impacts of COVID-19 on the use of mental health services by youth [28]. This probably undermined the efforts to improve access to mental health services.

Improving access to services

Access to mental health services for adolescents and young adults can be improved by addressing the barriers along the pathway to care. These interventions can target one or more dimensions related to the supply-side barriers (e.g., approachability, availability, or affordability of services) or demand-side barriers (e.g., the ability of an individual to understand their health care needs, engage with services, or pay for services) [29]. Werlen and colleagues synthesized findings from 34 randomized controlled trials of interventions to improve access to mental health services and identified two types of interventions: universal school-based interventions targeting the general population and interventions to engage at-risk individuals who had already been identified by the healthcare system [30]. The authors found that universal interventions improve knowledge and attitudes related to accessing care, but they do not have any effect on the actual access to care or on the mental health outcomes. The other type of interventions targeting at-risk children result in better access to care and satisfaction with care for these at-risk children; however, these interventions do not have any impact on mental health outcomes such as depression severity, health related quality of life, or suicide attempts [30].

An alternative categorization comes from Velasco and colleagues. They differentiate interventions to improve the access to mental health care as classroom-based psychoeducation [36], outreach interventions [37], multimedia and online-based interventions [38], and peer training [39]. According to the authors, interventions addressing stigma, mental health literacy, and attitudes towards mental health services could be beneficial in improving help-seeking and access to mental health care [25].

Delivering at scale and digital interventions

The most commonly used platform for the delivery of evidence-based interventions is through education systems, which were deeply affected by the COVID-19 pandemic. Although it is easier to approach children and adolescents in schools, even outside of the context of the pandemic, a range of barriers inhibit delivering the interventions. Valesco and colleagues enumerate issues related to school administration, difficulty in obtaining parental consent, and attrition of participants. Support from teachers and their engagement with the interventions are also important barriers in the implementation process [31]. What was difficult during the pre-pandemic period became almost impossible after the onset of COVID-19 pandemic because of school closures and remote schooling. Children and adolescents lost access to school-based healthcare services, special services for children with disabilities, and nutrition programs. Coupled with the loss of access, school closure led to increased anxiety, loneliness, stress, sadness, frustration, indiscipline, and hyperactivity in young people [32]. The only available option to provide mental health services during the COVID-19 pandemic was using the digital platforms.

Increased use of digital technologies, mobile devices, and social media/social networking provide unprecedented opportunities for engaging with adolescents and using these platforms for the delivery of mental healthcare [12]. Web-based/online and mobile-phone-based interventions can play a positive part in prevention and promotion of access to services. Digital Health Interventions (DHI) can be delivered in multiple formats, ranging from simple text messaging, mobile applications and web-based interventions to complex artificial intelligence-based computer programs and virtual reality environments. DHIs are a potential solution to scale up mental health interventions, and COVID-19 served as a pivot for re-designing mental

health services for children and adolescents [33]. Advantages of the telehealth delivery model include 1) flexibility; 2) online appointments can minimize transportation, disruptions in work commitments, childcare, and daily routine disruptions; and 3) ability of family members to participate. Conversely, lack of availability and access to appropriate technology or private spaces are major disadvantagse. Individuals who are very young, very unwell, unstable, isolated or at higher risk are also unable to participate [33].

One example of empirical data on these two sides comes from a home direct-to-consumer telehealth program launched in 2016 in the U.S. The program had increased utilization during the COVID-19 pandemic. Comparison of the pre-pandemic and pandemic data reveals that the telehealth program was more successful at meeting targeted volumes than the overall health system, and it saved patients a significant amount of travel miles and associated time. They also noted no problems with payment reimbursements [34].

Although extremely promising, there are a few issues with DHIs. The most important is the 'digital divide,' followed by the strength of the evidence-base of DHIs and problems related to the engagement with the digital interface. An example of evidence about the intersection of the pandemic, the digital divide, and its links to mental health outcomes comes from Metherell and colleagues' longitudinal study of 10−15 years old from the U.K. Participants completed a mental health inventory in 2017−2019 and thrice during the pandemic (July 2020, November 2020, and March 2021). They found that the worsening and subsequent recovery of mental health during the pandemic was greatly pronounced among those without access to a computer [35]. Similarly, a study about the implementation of evidence-based policy and practice by State Mental Health Authorities (SMHA) during the pandemic in the U.S. also noted barriers in the delivery of telehealth services that included limited access to internet and technology, family preference for face-to-face services, lack of privacy, and reimbursement challenges [36].

Given the rise of mental health concerns during the pandemic, well-developed DHIs are needed. Nevertheless, many of the mobile applications are only evidence-informed and are not rigorously evaluated to establish their effectiveness [37,38]. For example, Hollis and colleagues found that computerised cognitive behavioural therapy (cCBT) was effective for the treatment of depression and anxiety in adolescents and young adults, but the benefits were uncertain for the management of Attention Deficit/Hyperactivity Disorder (ADHD), autism, psychosis, and eating disorders. They also noted that the evidence regarding the cost-effectiveness of DHIs was lacking [39]. Although these findings were pre-pandemic, the findings are applicable for the DHIs used during the pandemic. Similar to school-based interventions, the challenges for the delivery of DHIs include poor patient engagement, high dropout rates, and interventions that inadequately address the needs of the users [40]. Overall, intervention-specific factors such as suitability, usability, and acceptability—as well as person-specific factors such as motivation, opportunity, and the capacity to use the intervention—have an impact on engagement with DHIs [41].

The COVID-19 pandemic highlighted how instability and change can plague adequate service delivery. In general, it is a common experience that evidence-based interventions fail to deliver the expected outcomes when implemented in a routine health care system or delivered at scale [42]. This is due to the unpredictable nature of the system (health care, education, communities) in which the interventions are ultimately embedded.

Systems Thinking tries to address this issue by framing "problems" as part of a wider, dynamic system. It demands a deeper understanding of the linkages, relationships, interactions, and behaviors among the elements that characterize the entire system [42]. The evidence-based interventions described above need to be adapted for the specific culture and the health/education/community system context before they are implemented [43]. Additionally, they must be considered in the context of the needs and changes to access to services caused by the pandemic. Worldwide, COVID-19 led to an additional burden on the health systems that faced challenges in integrating not just mental health services, but also broader services for non-communicable diseases. In the post-pandemic scenario efforts need to be made to design/adapt mental health interventions for adolescents that can be integrated within the weakened health systems.

Along with Systems Thinking, principles of implementation science will also be of great help in improving access to mental health care for young people. Implementation science provides methods to promote the systematic uptake of research findings and other evidence-based practices into routine practice, and hence to improve the quality of care [44]. In addition to the training and clinical supervision of the care providers, facilitation by a support team using a range of implementation strategies can help mitigate the challenges associated with the delivery of mental health services [45]. Velasco and colleagues note that implementation strategies should consider the reality and challenges of each school. According to them, the contextualization of the intervention and the specificities of the process of implementation (planning, engaging, executing, reflecting, and evaluating) need to be prioritized [25]. In the current context following the disruptions of COVID-19 in 2020 and 2021, such a process

would also require attending to how the pandemic has impacted the school community and student mental health needs.

Conclusions

Improving access to mental health services is the first step toward improving adolescent mental health. The significant increase in the burden of mental health conditions among adolescents during and post-COVID-19 period urgently necessitates improving access to mental health services.

Global priorities in this regard, especially in the post-pandemic scenario, can be summarized as follows. First, it is important for the researchers working in this area to use a common theoretical framework to describe various steps leading to access and utilization of mental health services. The comprehensive framework by Levesque and colleagues offers a good starting point [29]. This is important because in the absence of a common theoretical framework it is difficult to synthesize the existing evidence and provide a common guideline for improving services. Second, access to care should be measured using standardized tools and rigorous methodology in different settings across the globe. There is a need to develop and collect regular data on indicators that will help to fill information gaps in understanding access to mental health services [46]. The pandemic resulted in prioritization of collection of data related to the COVID-19 morbidity and mortality. The focus now needs to shift to other health areas, particularly mental health. Third, along with access to services, it is important to ensure that the evidence-based interventions are delivered with quality and at affordable costs [7]. Fourth, researchers must strengthen the evidence base for effective clinical interventions and interventions to improve access to care. Autonomy, self-sufficiency, and privacy play an important role during adolescence. Along with the existing interventions, there is a need for generating evidence around 'self-care' interventions and interventions based on peer interactions [47]. More work also needs to be done on improving engagement with DHIs and addressing context-specific challenges [41]. The pre-pandemic evidence base is predominantly from the Global North and best suited to that particular cultural context. In the post-pandemic world, it is necessary to develop and evaluate evidence-based interventions from the Global South. Fifth, equity needs to be the cornerstone of future efforts [48]. School-based interventions miss out on adolescents who are out of the formal education system, while DHIs can only be accessed by those who have access to mobile phones or similar technology [25]. This results in further marginalizing the vulnerable adolescents who probably need access to care the most. An increased familiarity with digital platforms due to COVID-19, along with the opening of schools and in-person interactions in the post-pandemic world, should be able to provide us an opportunity to improve access to services using the advantages from both the type of platforms. Sixth, policy initiatives backed up by on-the-ground implementation are essential to integrate adolescent mental health services into the existing public health system and education system.

Children, adolescents, and young adults all over the world have suffered a lot during the COVID-19 pandemic, and many continue to experience significant mental health problems. The existing vulnerability in this critical age group was augmented by the pandemic and has now become a global health crisis. Concerted efforts to improve access to high-quality, affordable mental health services is the only way forward to improve the mental health and well-being of youth, which in turn will lead to better health and well-being into their futures. There is no time to lose.

Author contributions

Rahul Shidhaye: Conceptualization, Formal Analysis, Funding Acquisition, Methodology, Supervision, Validation, Writing-Original Draft Preparation, Writing-Review & Editing.

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Data availability

No data was used for the research described in the article.

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