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Mental health of young people during the COVID-19 pandemic

Evidence Synthesis

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Executive Summary

COVID-19 pandemic has taken its toll on the mental health and wellbeing of the population globally. Even two years after the COVID-19 Pandemic breakout, the impact on the mental health of populations globally, particularly children and young people, is evident and dramatic (UNICEF, 2021a). There is limited evidence on COVID-19 and its impact on mental health of Georgian population, especially young people. The aim of this evidence synthesis is to look at the impact of the COVID-19 pandemic on the mental health disorders among young people in low- and middle-income countries, b) assess risk and protective factors influencing the mental health of young people in LMICs (during the pandemic) and c) compile evidence on the effectiveness of different mental health services among young people during the pandemic. Exploring these topics will aid Georgian stakeholders in advocacy targeting prioritization of child and adolescent mental health as well as development of accessible services that are tailored to the needs of the given population.

Introduction

Mental health of children and young people

The Sustainable Development Goals (SDGs) were adopted in 2015, and at that time, UN member states acknowledged mental health as a global public benefit and a right that nations have a responsibility to preserve (UNICEF, 2021b). Promotion and protection as well as caring for children's and young people's mental health has a crucial role in achieving majority of the sustainable development goals. Besides the goal 3, that calls on member states to "ensure healthy lives and promote well-being for all at all ages," number of other SDGs address different risk factors associated with children and young people's mental health (UNICEF, 2021b). Nearly everywhere around the globe, despite the economic status of the country, mental health conditions and most importantly the lack of caring responses – remain the source of great suffering, top cause of death, disease and disability among children and young people, especially for older adolescents (UNICEF, 2021b). All aspects of life, including school or work performance, relationships with family and friends, and participation in society, can be significantly impacted by mental health issues (WHO, n.d.). Nearly 1 billion people worldwide suffer from a mental disorder, which can range from addiction to dementia to schizophrenia. Anxiety and depression, two of the most prevalent mental diseases, cost the world economy \$1 trillion annually in lost productivity. In 2010, it was estimated that poor mental health cost the global economy \$2–5 trillion annually in lost productivity and poor health, with a projected increase to \$6 trillion by 2030 (The Lancet Global Health, 2020). Among more than 1.2 billion adolescents aged 10 to 19 who lived in the world in 2020, estimates show that more than 13% had a mental disorder (UNICEF, 2021b). Vast majority of mental disorders originate in teens and many have precursors in childhood (Jones, 2013). Childhood and adolescence are crucial periods for cognitive development when the brain is extremely plastic but sensitive to negative experiences. Long-term stress and disruption over age-typical learning and social-emotional experiences can have long-term effects on social, cognitive, and emotional development (Kelly, 2021). Psychological and emotional disorders are widespread among young adults as well. Anxiety and panic attacks as well as exaggerated worry are the most common occurrence among this age group. It's been estimated that 3.6% of young adults aged between 10-14 years old and 4.6% of 15-19 year-olds go through stress disorders and anxiety. High levels of depression are observed to be evident among 1.1% of teenagers aged 10-14 years old, and 2.8 % of those aged 15 to 19 (WHO, 2021). A median of 1 in 5 young people aged 15 to 24 surveyed said they typically are depressed or have little interest in being active, according to data from an international survey of children and adults from 21 countries conducted by UNICEF and Gallup and discussed in The State of the World's Children 2021. (UNICEF, 2021b). A comprehensive analysis of research conducted in low and middle-income countries(LMICs) has shown that mental health disorders during childhood or adolescence positively correlate with numbers of premature death cases and serious psychological problems during adult life (Klasen & Crombag, 2013). It has been stated that suicide is the 4th most widespread cause of death among the age category from 15 to 19 years old (WHO, 2021a).

Mental health and COVID-19

COVID-19 pandemic has taken its toll on the mental health and wellbeing of the population globally. Even two years after the COVID-19 Pandemic breakout, the impact on the mental health of populations globally, particularly **children and young people**, is evident and dramatic (UNICEF, 2021a). Different groups around the globe have responded differently to mental health challenges the effects of which have been exacerbated by the global outbreak of COVID-19. It's worth noting that the mental health challenges are **most devastating** for the vulnerable groups across societies, like children and adolescents (B. Chen et al., 2020). Frequently, mental health consequences are disregarded compared to physical condition/disease. As for the long-term consequences – they may not manifest until years later. Another important fact was noted that children who witness a natural catastrophe **before the age of five** are more likely to have a mental health condition in maturity (Ullah et al., 2022). However, given that COVID-19 is still a relatively recent phenomenon, it is difficult to draw firm conclusions on its long-term impact on children's mental health (Kelly, 2021).

Since the global outbreak of pandemic, focus of health care systems of low- and middle-income countries has gradually shifted to mental well-being of the population (Jordans & Kohrt, 2020). Although nations have reacted to the increase in mental health requirements, mental health services were already having trouble keeping up with the demand. The COVID-19 problem has raised the unmet need for mental health care in various countries (Minghui & Zhao, 2022). According to the research, access to mental health services within LMIC is limited within the confines of financial and human resources (Jordans & Kohrt, 2020). Regardless of age, people with common mental disorders often do not receive very much needed mental health and psychosocial support and this 'treatment gap' is especially wide in LMICs with estimates around 25% (in need) receiving care, with particular concerns about children and young people (Makhashvili, Javakhishvili, et al., 2022; Morris et al., 2011). Two high-level summits on global mental health have emphasized the need for mental health care in LMICs and this statement has made its way to policy makers (Jordans & Kohrt, 2020). The pandemic continues to pose challenges in terms of accessing mental health services (WHO, 2022). It's been evident that COVID-related restrictions (quarantine, self-isolation) have positively correlated with rising in mental health problems worldwide and despite their necessities, people have limited access to health care providers (Rosenthal et al., 2022). At the 74th World Health Assembly in May 2021 and the United Nations General Assembly in September 2020, governments endorsed the significance of developing and strengthening action on mental health (Minghui & Zhao, 2022).

Local context

Georgia is struggling to reform its mental health (MH) system. Mental health services for young people, including preventive programs are extremely limited, especially the ones dealing with common mental disorders. There is a need for effective interventions for MH of the young people, which has also been emphasized in the National Action Plan on MH reform 2015-2020, but the problem still poses an enormous burden on the given population. There is promising new National Strategic Plan for the upcoming years

2022-2030, with increased spotlight on the child and adolescent mental health as one of the nation's priorities (Makhashvili, Javakhishvili, et al., 2022). According to another study by Makhashvili and colleagues, mention that the impact of COVID-19 on mental health may be profound as neuropsychiatric disorders already amounted to 22.8% of the pre-COVID-19 burden of disease in Georgia the study did show that probability of reporting mental ill health symptoms increased in 2021 compared to 2020 for several disorders, including PTSD(post-traumatic stress disorder), depression, anxiety and adjustment disorder (Makhashvili, Pilauri, et al., 2022).

The aim of this evidence synthesis is three-fold a) to look at the impact of the COVID-19 pandemic on the mental health disorders among young people in low- and middle-income countries, b) assess risk and protective factors influencing the mental health of young people in LMICs (during the pandemic) and c) compile evidence on the effectiveness of different mental health services among young people during the pandemic.

This evidence synthesis will aid stakeholders in advocacy targeting prioritization of child and adolescent mental health as well as development of accessible services that are tailored to the needs of the given population.

Methods

What is Evidence synthesis?

An Evidence Synthesis product responds to requests from policymakers and stakeholders by summarizing the research evidence drawn from systematic reviews and from primary research studies and provides them access to optimally packaged, relevant and best available research evidence.

The preparation of this Evidence Synthesis involved the following steps:

1. Formulating a clear review question on a high priority topic discussed with stakeholders.
2. Establishing what is to be done, and in what timeline
3. Identifying, selecting, appraising and synthesizing the relevant research evidence about the question
4. Drafting the Evidence Synthesis in such a way that the research evidence is presented concisely and in accessible language
5. Final submission, validation, and dissemination of the Evidence Synthesis

Definitions

According to WHO, "Adolescents" are people between the ages of 10 and 19 and "Youth" are people between the ages of 15 and 24. While "Young People" includes those between the ages of 10 and 24 (WHO,

2021b). In the following evidence synthesis we will be using the term “young people” and “children” to encompass ages 0-24 and disregard the overlaps between them.

Evidence search and studies selection

We built our synthesis on the findings from the WHO scientific brief that was published in 2022. We used this brief that presented evidence regarding the mental health aspects of the pandemic, including the prevalence of mental health symptoms and mental disorders, as well as effectiveness of psychological interventions adapted to the COVID-19 pandemic as a starting point for our review. Only a few studies from LMICs were uncovered in the Global Burden of Disease (GBD) analysis (which served as the basis for this WHO brief). As a result, estimates are mostly based on the information from high-income countries and might not be as useful in other situations. Furthermore, the lack of high-quality data from many LMICs may be the cause of the enormous uncertainties around estimates (WHO, 2022). Considering this, our evidence synthesis will supplement the evidence from the WHO brief by retrieving evidence focusing on the LMICs.

We conducted a literature search on March 22nd, 2022 in PubMed database. We searched all types of studies (systematic reviews, reviews, and primary research studies) published since October 2021 (our evidence synthesis is based on the WHO brief, which includes articles published up to October 2021, therefore the literature search for eligible articles has been conducted with consideration of the article publication dates – since October 2021).

PubMed search strategy included the following search terms: COVID 19 OR COVID-19 OR COVID19 OR (sars-cov-2 OR coronavirus OR coronavirus infection OR pandemic* OR COVID-19 Pandemic* COVID 19 Pandemic* OR COVID19 pandemic*) AND (Children OR adolescen* OR young OR teenager* OR teen* OR youth*) AND (Mental health OR mental OR mental disorder* OR mental illness*).

The search was run in titles/abstracts of the papers. The search was limited to English language papers and to date of publication mentioned above.

Supplementary search was conducted for papers on evidence of service effectiveness using **additional search terms:** service OR care centre OR treatment AND effectiv* OR efficiency.

In total first search resulted in **902 references**. 6 authors reviewed all titles and abstracts generated by the search. As the interest of this synthesis is low- and middle-income countries, high-income countries were manually excluded after abstract screening and full-text assessment. Total of **35 publications, including 5 systematic reviews**, were identified and included in the Evidence Synthesis.

Data was extracted according to the predetermined data extraction form. Among the other information, we extracted a summary of results as well as looked deeper in the cited studies that brought up several additional papers for our synthesis. We did not determine the methodological quality of the studies.

We structure the evidence synthesis section in the following way: we begin by an overview of the (1) impact of COVID-19 pandemic on mental health of young people in LMICs followed by (2) protective and risk factors and finally explore (3) available evidence on mental health services and their effectiveness. Each section starts with a short overview of WHO scientific brief regarding the given topic.

Synthesis of the evidence

Impact of COVID-19 pandemic on mental health of young people

As per WHO scientific brief, even though many individuals have adapted, other have experienced health problems, often as a consequence of COVID-19 infection. According to the GBD 2020, the COVID-19 pandemic was expected to contribute to increasing anxiety disorder (AD) cases by 25.6% and major depressive disorder (MDD) cases by 27.6% globally in 2020. COVID-19 pandemic was also associated with higher rates of suicide attempts (4.68 %), suicidal thoughts (10.81 %) and self-harm (9.63 %) than the pre-pandemic period among general population (WHO, 2022).

Multiple studies have demonstrated that COVID-19 causes major mental health concerns after experiencing its symptoms, which was discovered while studying young people (Kelly, 2021) but regardless of COVID-19 having mild symptoms among children and young people, isolation-related mental health problems are increasing in this age group (Ullah et al., 2022). Porter et al. discovered that older youth(>18y/o) had more mental health problems during the pandemic than younger youth(<18 y/o), a finding that has been replicated in some, but not all, worldwide populations. This may reflect older youths' increased awareness of the pandemic and its risks and costs, as well as more severe direct effects, such as restrictions on their activities and opportunities for social interaction (Kelly, 2021) as suddenly, the youngsters around the world, got stuck at home due to inevitable circumstances and pushed towards distant learning, deprived of authentic social interactions (Bera et al., 2022).

Country-specific evidence

To retrieve evidence on 8 LMIC countries (China, Argentina, Turkey, Brazil, India, Morocco, Pakistan, Ghana) we reviewed 16 studies: 1 systematic review and 15 primary studies.

Studies conducted in **China** have shown that mental health problems during the COVID-19 pandemic are concerning. In the non-epidemic period, the prevalence of depression and anxiety in the general population was 6.8% to 7.6%. During the COVID-19 pandemic, the reported rate of anxiety and depression among adults ranged from 6.33% to 32.1%. Furthermore, 43.7% of Chinese high school students have depression and 37.4% have anxiety symptoms (Ma et al., 2021). Several studies have shown that during the COVID-19 pandemic, population mental health has worsened, especially in young people. According to a study (Y. Chen et al., 2021), COVID-19 spread could increase the rate of post-traumatic stress disorder. In another

study, a cross-sectional study with more than 150 thousand participants, regression analysis showed female adolescents have higher depression and anxiety than male adolescents. As for the prevalence of depression in adolescents it was 35.9%, and for anxiety levels stood at 28%. (J. Zhou et al., 2021). According to 12 Chinese studies conducted during COVID-19 pandemic, the pooled prevalence of mental health problems in children and adolescents was significantly higher (28% vs17%) than before the pandemic (Chai et al., 2021).

The prevalence of depression in college students has increased during COVID-19 pandemic too (D. Wang et al., 2022). During the pandemic, suicidal thoughts have grown as well and 15.8% of college students males and 24.4% of females had suicidal thoughts (Peng et al., 2022). An online survey of more than 50,000 participants, concluded that pandemics have long-term adverse mental health consequences in Chinese young people (Cao et al., 2022).

A cross-sectional study (sample size of 1205 parents and caregivers) **in Argentina** found that the most affected age group was 3-11 year old children. In children aged 3-8, increase of aggression has been shown, while children aged 9-11 showed the largest increases in **anxiety and depression**. Considerable proportion of parents and caregivers perceived changes in their children's emotional state and behaviors compared to before the pandemic. Particularly, they reported increased levels of **aggression-irritability, dependence-withdrawal, impulsivity-inattention**, and **anxiety-depression**, in their children and adolescents. They also reported changes in **sleeping and eating habits** and decreases in positive emotions (Andrés et al., 2022).

In **Turkey**, research has shown that **stress and anxiety** levels are related to each other and are high in university students during the COVID-19 pandemic. The study found that the prevalence rates of anxiety in males and females were 8.60 and 16.56%, respectively and these rates were relatively higher than other types of anxiety prevalence in former studies. Another study among Turkish population also showed that young people have serious levels of **anxiety, depression and PTSD** symptoms during the COVID-19 (Durbas et al., 2021; Selçuk et al., 2021).

A survey of 9,470 young people in **Brazil** showed that high percentage of Brazilians felt **sad** (32.3%) and **nervous** (48.7%) and more than three out of every 10 participants presented positive **depression** symptoms (Barros et al., 2022; Moura et al., 2022).

In **India**, mental health problems are cited as one of the leading causes of non-lethal diseases. The majority of the pupils were discovered to have moderate levels of **stress**, which is a serious worry for the healthcare authorities, teachers, and parents. Although just 7% of pupils are classified as having severe stress, the situation is concerning since it could lead to a pandemic of childhood stress in the future. Among children who tested positive for COVID-19 or have been in quarantine in the past - between the ages of 15 and 16 were the age group most impacted by **moderate stress levels**, according to the stress response in “%” in stratified age groups and the age group of 13 and 14 years were the most **severely affected** (Ray et al., 2022).

Moroccan researchers mentioned that local young people reported higher **depressive symptoms** compared to other countries (Sweden and Israel). Depressive and paranoid thoughts were also more prevalent during the pandemic period than during the pre-pandemic period (2014-2015). Also, During the COVID-19 pandemic in Morocco, girls were three times more likely to report having increased levels of depression and paranoid thoughts (Mzadi et al., 2022).

45.6% of adolescents in **Pakistan** showed post-traumatic growth (a theory that explains positive transformation following trauma). The results revealed significant impact of COVID-19 pandemic in almost all dimensions of adolescent's lives. There was a higher rate of mental health problems among 15-18 year old respondents than among children under 15 years old (Imran et al., 2022).

In **Ghana**, 60.2% of students reported an increase in perceived stress compared to previous years, and 20% experienced this increase. 40% of students reported a decrease in mood due to the pandemic, and 43% reported decreased resilience (Adjepong et al., 2022).

Risk factors

We identified risk factors from 13 primary studies. According to the WHO brief, younger people, particularly those between the ages of 20 and 24, were more impacted than older ones, and women were more affected than men. Furthermore, many low and middle-income countries were significantly impacted. Despite inconsistent findings, **female gender, younger age, and pre-existing health issues** were often identified as risk factors (WHO, 2022).

Similar to WHO findings, numerous research conducted on COVID-19 has so far revealed significant risk factors, such as **social isolation and loneliness, being female, young age, prior history of mental problems, life disruption, lower social support, low-income status, perceived threat of the disease and fear of being infected**. Another considerable finding was that COVID-19 stress was related to increased symptoms of depression, especially for adults who spend more **time on social media** (Barros et al., 2022; Durbas et al., 2021; Imran et al., 2022; Moura et al., 2022; Ray et al., 2022; Selçuk et al., 2021; D. Wang et al., 2022; Xiao et al., 2022; J. Zhou et al., 2021).

Studies reported that **frequent media use** (which led to frequent access all kind of news) and persistent observation of an epidemic and death aggravates for fear of infection especially in young people whose mental or physical health are poor (Peng et al., 2022; J. Zhou et al., 2021). As for pre-existing conditions, India has concentrated on helping children who **already have mental health issues** since, according to research they are more likely to experience an increase in psychological discomfort (Imran et al., 2022; Ray et al., 2022). **Life disruption** was also the main risk factor associated with depression, anxiety and stress level (Angelina et al., 2021; Kornilaki, 2021; W. Wang et al., 2022; J. Zhou et al., 2021). Prolonged **isolation** has led to the cancellation of important life events, changing daily routines, less life events and activities, less inter-personal communication, academic delays and slowing down achievements. All of this greatly increased the feeling of loneliness and emotional exhaustion (Angelina et al., 2021; Barros et al., 2022; Peng

et al., 2022; W. Wang et al., 2022). A significant disadvantage of isolation has been found to be sleep quality impairment. Worsened sleep during the pandemic increased prevalence of frequent nervousness (Barros et al., 2022). Family relationships were also a significant challenge during quarantine, **frequent conflict** in the family was a high risk factor for anxiety (J. Zhou et al., 2021). According to studies from China and Pakistan, **living in severely affected epidemic areas** was found to be associated with the higher level of anxiety among young people (Imran et al., 2022; J. Zhou et al., 2021). **Poor family economic status** was also a main risk factor for depression. Adolescents with low socioeconomic status experienced significantly more anxiety during the pandemic than their peers in higher SES (Socioeconomic Status). According to Xiao et al. experienced instability exacerbates mental suffering (Xiao et al., 2022). Young peoples who **lost a family member** due to COVID-19 were significantly associated with having COVID-19-related anxiety (Durbas et al., 2021). The presence of **COVID-19 in the family or environment** was associated with increased anxiety and **living in an urban area** was associated with increased anxiety, depression and PTSD symptoms (Selçuk et al., 2021).

Protective factors

11 primary studies looked into protective factors, that have been identified as helping factors, that should protect young people from mental health disorders during the COVID-19 Pandemic. During this period, everyone had feelings of uncertainty, especially young people. This group appears to be particularly vulnerable group during the pandemic period. Several articles mention that to reduce the risk of the potentially harmful psychological consequences of COVID-19 pandemic there is one promising protective factor - **mindfulness** (Berger et al., 2022; Kock et al., 2021). **Social capital** has a protective effect on children's and adolescents' well-being (Dedryver & Knai, 2021), having a **close friend**, and having strong **perceived social support** may contain as a protective factor as well (Sampogna et al., 2021). Studies have shown that spending time in nature, psychical activity, and activities such as reading or baking are the key protective factors (Berger et al., 2022; Caldwell et al., 2021; Imran et al., 2022). Children who engaged in regular psychical activity during the COVID-19 pandemic seemed to fare better, lack of psychical exercise during the pandemic has been linked to higher levels of mental health disorders (Meade, 2021). Improving or maintaining **dietary patterns** and **quality of sleep** has shown to have reduced psychological distresses such as depression and anxiety, although regular rest was the helping factor during the COVID-19 pandemic (Angelina et al., 2021; Imran et al., 2022). Protective factors as well were **frequent communication with peers** that had the greatest positive influence on Chinese population and the existing depression symptoms. Studies have shown that **healthy social activities** are significant to stable emotions (C. Zhou et al., 2021; J. Zhou et al., 2021). For the young people to socialize **face-to-face** had a protective effect during the pandemic period (Owens et al., 2022). Family context played an important role during the pandemic when many **families spent more time together** which was a sign of positive mental health (Zolopa et al., 2022). Urban residents in Pakistan had fewer symptoms of depression, which may be related to their more **convenient learning resources** and **increased awareness** (Imran et al., 2022; J. Zhou et al., 2021).



Figure 1. Risk and protective factors identified from the literature.

Effectiveness of services

Although several studies suggested novel approaches to deal with the MH issues caused by the pandemic, the evidence on the effectiveness of mental health services for young people was scarce, especially in LMICs. Therefore, this section compiles information using information retrieved from WHO brief as well as UNICEF document and 5 primary studies on different services for all age-groups in different income-level countries.

More than 33% of responding WHO Member States reported continued disruptions to mental health services to adults and children and young people between November and December 2021 in the third round of the WHO's pulse survey on continuity of essential health services during the COVID-19 pandemic. These findings were echoed in 21 systematic evaluations from the umbrella review that was conducted to analyze the pandemic's impact on mental health care. The vast majority of WHO Member States have mentioned adding new services and including psychosocial support and mental health within COVID-19 response initiatives.

As inpatient treatments changed to virtual visits, activities such as group therapy, external events, and family visits were halted, with a greater emphasis on self-care, physical exercise and diet. Mental health professionals reported utilizing digital technology to mitigate service disruptions, with consultations, therapy, and follow-up given over the phone or via video-conferencing platforms and web applications.

Furthermore, service providers reallocated employees to help prevent the onset of mental disorders in vulnerable individuals by establishing online psychological support programs and improving community care for health care professionals, often in conjunction with governmental and non-governmental entities. The transition to e-mental health care was reported to provide more flexible service scheduling and to be especially suitable for certain groups, such as young, financially independent individuals.

Efforts were undertaken during the pandemic to modify existing tactics or create novel interventions to prevent or treat pandemic-related mental illnesses and improve resilience. The two meta-analyses concerned 128 to 384 trial participants (all from China, mostly COVID-19 patients and healthcare workers) and a variety of psychological interventions, such as guided crisis intervention, internet-based interventions, and relaxation training, for COVID-19 patients or healthcare personnel. These interventions were shown to considerably enhance overall mental health and reduce depression and anxiety when compared to control settings. The majority of studies demonstrated improvements in depression, anxiety, and distress among people affected by infectious disease outbreaks, including COVID-19, in response to (digital) interventions such as trauma-focused cognitive-behavioral therapy (CBT), stepped care with psychoeducation and brief crisis intervention or self-help therapies. New systematic review and meta-analysis were published after the umbrella review was completed. According to the results, most of the interventions were delivered remotely (for example, self-help programs or online CBT) and were compared to no intervention, waitlist conditions or usual care. Psychological interventions provide a statistically significant benefit for anxiety and depression (WHO, 2022).

Mental health services for children and adolescents were disrupted in more than two thirds of 130 countries surveyed, while school mental health services were disrupted in almost four out of five countries (UNICEF, 2021b).

During the pandemic in the USA, telehealth programs were used. There are several studies about the effectiveness of telehealth programs. According to Rosenthal et al. sexual and gender minorities and those with low social status were more likely to access these services, highlighting their effectiveness in reaching disadvantaged young adults. Those with mental health symptoms were more likely to utilize telehealth, but those with substance use were not (Rosenthal et al., 2022). Also in the USA clinician's organizations offered telehealth services to their clients, which consisted of the use of either video or audio platforms, and overall most clinicians found the use of telehealth beneficial and effective (AlRasheed et al., 2022). According to a research published in the USA by Sullivan et al., unlike clinics, telehealth programs in schools were not effective, because children didn't join them, possibly because of video fatigue resulting from remote learning (Sullivan et al., 2021).

In Canada, there was a virtual-care program during COVID-19. Clinicians were divided in their perceptions of the effectiveness of virtual care, with only 42% reporting that they felt they were as effective in delivering healthcare services virtually as compared to in-person (Romanchych et al., 2021). Also in Canada, there was a second program using iCOPE (a brief telemental health intervention for children and adolescents to address anxiety symptoms). The results from the child questionnaires demonstrated that after pre- and post-intervention they notice that anxiety level in children tends to decrease (Zepeda et al., 2021). We did not

manage to extract any information or studies discussing the mental health service effectiveness provided in LMIC countries during the COVID-19 pandemic. There is no data on mental health services effectiveness during COVID-19 in Georgia.

Conclusion

To summarize the evidence we found above, the findings are mostly in agreement with what WHO reported in the scientific brief. Namely, in the first year of the pandemic, the general populations' and particularly young peoples' mental health issues significantly increased. Despite mixed data, younger age, pre-existing health issues, female gender, social isolation and loneliness, life disruption and poor economic status were frequently cited as risk factors. Access to crucial mental health care was disrupted during the COVID-19 pandemic, while reports suggested that some of these disruptions may have been partially avoided by moving services to e-mental health care. There is a gap in data on these issues in LMICs and much more research is required to a) determine how the pandemic may have affected the mental health of the population in these countries and b) assess the effectiveness of the mental health services.

Considerations for further research

Based on this evidence synthesis (especially for similar income level countries), we can only make an assumption that COVID-19 pandemic has had similar impact on the mental health of **young people** in Georgia. Further research is needed to assess the real situation of young people's (especially underaged population) mental health in Georgia as well as find out effective interventions for this age group.

Any Interventions should be designed in participatory manner together with the beneficiaries to protect the mental health of those who are most at risk by giving various stakeholders (such as children, parents, teachers, and healthcare workers) dependable information and support (Mari et al., 2021). Implemented interventions should be contentiously assessed and fine-tuned.

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