




A year in perspective: The impact of the COVID-19 pandemic on engagement with Jigsaw youth mental health services

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Abstract

Aim: The COVID-19 pandemic has presented significant challenges for young people and youth mental health services. To address a gap in knowledge about the impact of the pandemic and associated restrictions on youth mental health services, this paper examined the nature of young people's engagement with Jigsaw's brief intervention service during the pandemic.

Method: Data gathered from young people engaging with Jigsaw's brief intervention service in the 12 months after the official declaration of the COVID-19 pandemic ($n = 6161$), and 12 months prior ($n = 8665$) were examined.

Results: There were less referrals to Jigsaw during the pandemic, especially during lockdown periods, but this rebounded when public health restrictions were eased. A higher proportion of females ($p < .001$) and 12–17 year olds ($p < .001$) were referred during the pandemic period. There was an increase in the proportion of young people who presented with anxiety ($p < .001$) and sleep changes ($p < .001$). Although 12–16 year olds reported significantly higher levels of distress during the pandemic ($p < .05$), the effect size was small. Young people reported high levels of satisfaction with the new phone/video modes of support offered by Jigsaw, and the overall attendance rate improved during the pandemic period.

Conclusions: The impact of COVID-19 on young people's mental health needs to be considered as a priority. This paper is helpful for services considering the long-term mental health needs of young people, and the best way of meeting those needs.

KEYWORDS

COVID-19, pandemic, youth mental health, youth mental health service

1 | INTRODUCTION

On the 11th March 2020, the World Health Organisation (WHO) officially declared the spread of the Coronavirus disease 2019 (COVID-19) a pandemic. At the time of writing, there were over 122 million confirmed cases of COVID-19 across 188 countries/regions, with in excess of 2.7 million associated deaths (John Hopkins University, 2021). Mental health professionals and researchers have expressed concerns that exposure to the COVID-19 pandemic during

a vulnerable developmental stage places young people at greater risk of the negative psychological impacts of such an event (Holmes et al., 2020). Additionally, a number of reviews have indicated the pandemic has adversely impacted the mental health of young people, particularly those living with pre-existing psychological and contextual vulnerabilities, although the quality of this evidence is mixed and typically generated from cross-sectional studies (de Miranda et al., 2020; Jeffery et al., 2021; Nearchou et al., 2020). At the same time, longitudinal studies monitoring mental health across the pandemic point to a

reduction in the number of young people reporting difficulties since the initial lockdown period in Europe, and have detected improved wellbeing for some young people (Fancourt et al., 2021; Raw et al., 2020; Shanahan et al., 2020). This demonstrates a more nuanced picture of the psychological impacts of the pandemic, with the true impact of COVID-19 not yet fully understood.

By comparison, there has been less focus on the potential impact of the COVID-19 pandemic on engagement with youth mental health services, which have historically been under resourced, not developmentally sensitive or youth-oriented, inaccessible and siloed (Hetrick et al., 2017; O'Reilly et al., 2015). Further, hard indicators of mental health service use such as referrals to services, hospital admissions, emergency department (ED) presentations and appointments booked/attended may be useful in estimating the psychosocial effect of the pandemic (Clerici et al., 2020). While not specific to youth mental health services, a handful of studies have shown reduced rates of presentations to EDs and psychiatric admission rates during the initial period of COVID-19 restrictions, and a further study reported reduced service use at four headspace youth mental health services during the same period (Clerici et al., 2020; McAndrew et al., 2020; McIntyre et al., 2020; Nicholas et al., 2021; Steward et al., 2020; Szmulewicz et al., 2021). Conversely, one study reported a small increase in children/adolescents presenting to an Irish ED for mental health reasons between March and May 2020, whilst a report on engagement with an Australian digital mental health service found an increase in telephone and website contacts, particularly from females, in the early COVID-19 period (McAndrew et al., 2020; Titov et al., 2020). Several contributors have cautioned that observed decreases may represent an unmet need among the population, and have suggested further research is needed to determine how mental health service use varies across the pandemic.

Managing any increase in demand for mental health services is particularly challenging in the context of service disruptions. Mental health services in most countries have had to temporarily close and/or radically reconfigure their services to accommodate public health measures associated with the COVID-19 pandemic, such as physical distancing and minimizing in-person contact, whilst also dealing with suspected/confirmed cases of COVID-19, staff illness and redeployment (Fegert & Schulze, 2020; Franic & Dodig-Curkovic, 2020; McIntyre et al., 2020; Steward et al., 2020). Indeed, one survey of 1274 16–24 year olds in the United Kingdom (UK) indicated 58% of participants engaging with mental health services before the pandemic experienced disruption to these services (Young Minds, 2020). At the same time, many mental health services have successfully adapted to the disruptions by commencing or extending supports by phone or online, with the pandemic being described as the “black swan” for the sector; that is, an unforeseen event that changes everything (Wind et al., 2020). Early research indicates many young people find phone/video mental health supports acceptable, although fears around ensuring equitable access to online supports have also been articulated (Nicholas et al., 2021; Wood et al., 2020).

To address the gap in knowledge about the impact of the COVID-19 pandemic and associated restrictions on youth mental health

services, the aim of this report is to describe the nature of young people's engagement with Jigsaw's brief intervention service before and after the official declaration of the COVID-19 pandemic in March 2020. This paper provides real world data from a national network of integrated youth mental health services. This contributes to understanding how a pandemic may impact engagement with youth mental health services, supporting policy and planning in this area. Further information about Jigsaw services is available in O'Reilly et al. (2021). Briefly, there are currently 14 Jigsaw services (including one digital service) in Ireland, offering mental health supports for young people experiencing mild to moderate mental health difficulties. The Jigsaw model of therapeutic support is brief and evidence-informed. Following initial intake and assessment young people may attend for a brief therapeutic intervention of up to eight sessions; the average is 5.9. Typically, Jigsaw clinicians draw on a range of therapeutic approaches, such as cognitive behavioural, compassion focused, acceptance and commitment, or solution focused, depending on the needs and developmental level of each young person. To enhance accessibility, services are provided at no cost at the point of delivery in youth-friendly service settings, and no professional referral is required. Previous studies have documented the characteristics of young people engaging with Jigsaw services (O'Reilly et al., 2015; Peiper et al., 2015), and provided preliminary evidence on their effectiveness (Donnelly et al., 2019; O'Keeffe et al., 2015).

Prior to March 2020, a brief intervention was delivered in-person by a clinician in a Jigsaw hub. Jigsaw's in-person brief intervention services were suspended from 13th March to 3rd June whilst the infrastructure required to deliver phone/video sessions was put in place. During this time, interim phone support was provided to young people who had been engaged with Jigsaw services prior to the pandemic period, which included brief check-ins and some level of therapeutic intervention. In-person brief intervention sessions recommenced in July 2020.

2 | MATERIALS AND METHODS

2.1 | Participants

Participants were young people engaging with Jigsaw's brief intervention service during the 12 months after the WHO announcement of the pandemic (11 March 2020 to 10 March 2021), and the 12 months prior (baseline period; 11 March 2019–10 March 2020). This included $n = 6161$ referrals during the pandemic period and $n = 8665$ during the 12 months prior. Additional information was collected from $n = 3292$ young people at screening/assessment during the pandemic period, and $n = 4508$ young people at baseline.

2.2 | Procedure

Information about young people engaging with Jigsaw is captured by staff using the Jigsaw Data System (JDS), an electronic case management and evaluation tool. Young people (and parents/guardians, for

those under 18 years) provide informed consent to their data being collected and stored for research and evaluation purposes.

Anonymized data accessed for this report comprised demographic information for referrals (i.e., age, gender), wait-time to first appointment, and details on sessions offered (i.e., number of sessions, mode of delivery and attendance). Additional information on presenting issues and psychological distress was collected from young people at screening/assessment. Baseline psychological distress was measured using the YP-CORE (12–16 year olds; Twigg et al., 2009) and the CORE-10 (17+, Barkham et al., 2013). The CORE categorizes distress into clinical and non-clinical levels and includes questions to identify young people at risk of suicide. The maximum score is 40, with higher scores indicating higher levels of distress. The psychometric properties of both measures are well established (Barkham et al., 2013; O'Reilly et al., 2015; Twigg et al., 2009). Cronbach's alpha in the current study was .82 for the YP-CORE and .78 for the CORE-10.

Finally, anonymous feedback gathered from young people exiting Jigsaw was analysed using the headspace *Youth Satisfaction Survey* (YSS; Rickwood et al., 2017). The 15-item YSS includes questions about a young person's engagement with Jigsaw staff, what they feel they have gained from coming to Jigsaw, and any suggested areas of improvements for the service. The YSS can be completed in-person or online. The measure had a high reliability with a Cronbach's alpha of 0.93.

2.3 | Statistical analysis

Data were extracted and structured using Power Query (M language), Power BI [Data Analysis Expression (DAX)] and structured query language (SQL). Statistical tests were conducted on STATA 14.2. Descriptive and inferential statistics (*t*-tests and Chi square tests of

Independence) were used to examine changes in referrals, wait time, attendance, baseline distress, presenting issues and satisfaction with the service. Only Chi values of $p < .05$ and standardized residuals $+/- 2$ were reported as significant.

3 | RESULTS

3.1 | Referrals

As Figure 1 shows, there were markedly less referrals to Jigsaw between March and June 2020 when services were suspended, relative to the baseline period. However, by June 2020, referrals started to increase, coinciding largely with the easing of the first national lockdown. This upward trend in referrals continued until September 2020. Referral rates began to fall again in January 2021, during the third national lockdown, and have remained lower than the baseline period in 2021.

Table 1 presents key information on referrals. As this shows, referral pathways remained the same during the pandemic period, although there was a significantly higher proportion of parent referrals. The most common mode of referrals in both time periods was phone, although email referrals were more frequent in the pandemic period, and there were fewer paper and in-person referrals. Additionally, there was a significant difference in wait-time for a brief intervention service before and after the pandemic.

3.2 | Psychosocial characteristics

As Table 2 shows, the majority of referrals were for females in both the baseline and pandemic period, and 12–17 year olds were most

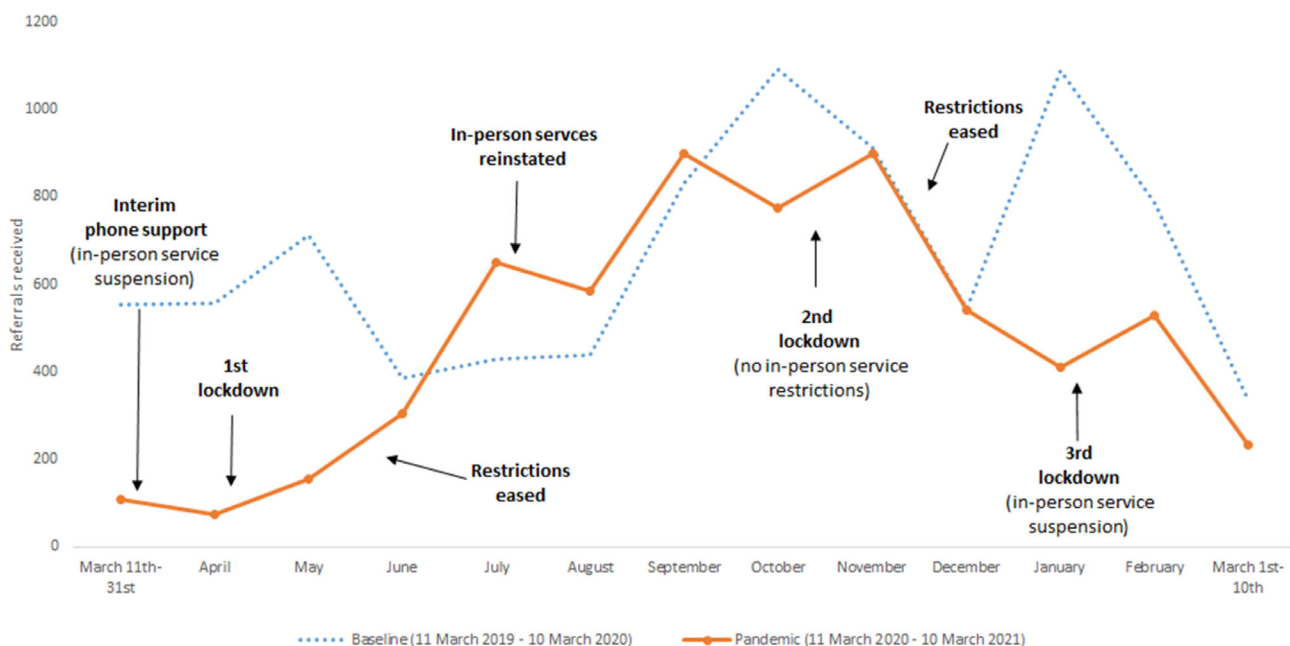


FIGURE 1 Referrals to Jigsaw services during pandemic and baseline period

TABLE 1 Key information on referrals to Jigsaw during baseline and pandemic period

	Baseline (n = 8665)	Pandemic (n = 6166)	Sig.
<i>Main referral pathways</i> % (n)			
Parent/guardian	55.3 (4792)	57.4 (3540)	$\chi^2 = 6.51, p = .011^*$
Self (young person)	26.2 (2271)	25.3 (1564)	$\chi^2 = 1.34, p = .247$
General Practitioner	6.8 (587)	6.6 (405)	$\chi^2 = 0.25, p = .620$
<i>Referral format</i>			
Phone call	62.2 (5388)	60.9 (3753)	$\chi^2 = 2.64, p = .104$
Email	16.3 (1413)	25.2 (1551)	$\chi^2 = 176.33, p < .001^{***}$
Paper referral	14.6 (1269)	12.9 (794)	$\chi^2 = 9.40, p < .001^{***}$
In-person	6.8 (588)	0.9 (58)	$\chi^2 = 295.45, p < .001^{***}$
<i>Mdn (IQR)</i>			
Wait time (in days)	41 (21–72)	65 (29–105)	$Z = -24.729, p < .001^{***}$

* $p < .05$; *** $p < .001$.**TABLE 2** Psychosocial characteristics of participants

	Baseline	Pandemic	Sig.
% (n)			
Demographics	n = 8665	n = 6166	
Male	38.9 (3369)	33.3 (2050)	$\chi^2 = 48.8, p < .001^{***}$
Female	61.1 (5296)	66.7 (4111)	
12–17 years	69.6 (5607)	71.8 (4067)	$\chi^2 = 8.15, p < .001^{***}$
18–25 years	30.4 (2453)	28.2 (1596)	
Presenting issues	n = 3957 ^a	n = 2779 ^b	
Anxiety	59.6 (2359)	65.1 (1809)	$\chi^2 = 20.78, p < .001^{***}$
Female 12–17	63.1 (1117)	68.0 (965)	$\chi^2 = 8.06, p = .0045^*$
Female 18–25	70.1 (488)	70.9 (358)	$\chi^2 = .08, p = .7711$
Male 12–17	46.1 (490)	52.3 (319)	$\chi^2 = 5.96, p = .0146^*$
Male 18–25	61.5 (264)	68.4 (167)	$\chi^2 = 3.22, p = .0728$
Low mood	46.6 (1842)	45.1 (1253)	$\chi^2 = 1.41, p = .2358$
Female 12–17	46.2 (817)	44.9 (637)	$\chi^2 = .56, p = .4552$
Female 18–25	57.2 (398)	52.7 (266)	$\chi^2 = 2.41, p = .1207$
Male 12–17	37.8 (402)	37.0 (226)	$\chi^2 = .10, p = .7548$
Male 18–25	52.4 (225)	50.8 (124)	$\chi^2 = .17, p = .6845$
Sleep changes	30.6 (1211)	36.4 (1011)	$\chi^2 = 24.64, p < .001^{***}$
Female 12–17	30.9 (547)	35.6 (506)	$\chi^2 = 7.91, p = .0049^*$
Female 18–25	34.6 (241)	42.4 (214)	$\chi^2 = 7.47, p = .0063^*$
Male 12–17	27.0 (287)	32.6 (199)	$\chi^2 = 5.95, p = .0147^*$
Male 18–25	31.7 (136)	37.7 (92)	$\chi^2 = 2.50, p = .1137$
<i>M (SD)</i>			
Baseline distress ^c	n = 4229	n = 3064	
CORE-10 males	17.0 (6.8)	16.8 (6.5)	$t(1096) = 0.53, p = .297$
CORE-10 females	17.9 (6.3)	18.2 (6.3)	$t(2044) = -1.0, p = .159$
YP-CORE males	14.7 (7.1)	15.6 (7.7)	$t(1076) = -2.25, p = .012^*$ $d = .122$
YP-CORE females	18.7 (7.4)	19.8 (7.3)	$t(2755) = -3.85, p < .001^{***}$ $d = .147$

* $p < .05$; *** $p < .001$.^aThe age and gender stratified denominators for the baseline are: 12–17 females n = 1769; 18–25 females n = 696; 12–17 males n = 1063; 18–25 males n = 429.^bThe age and gender stratified denominators for the pandemic period are: 12–17 females n = 1420; 18–25 females n = 505; 12–17 males n = 610; 18–25 males n = 244.^cThe YP-CORE is completed by 12–16 years old and the CORE-10 by 17–25 year olds.

commonly referred to the service in both instances. However, there was a significantly higher proportion of females and 12–17 year olds referred during the pandemic.

The three most common presenting issues, both at baseline and during the pandemic year, were anxiety, low mood and sleep changes. While the issues remained the same across periods, there was a higher overall proportion of young people presenting with anxiety and sleep changes during the pandemic period. As there were shifts in demographics between the baseline and pandemic period, the presenting issues were also stratified in age and gender categories. All groups experienced some increase in anxiety, but this was only statistically significant for females and males who were under 18. Additionally, all groups except 18–25 year old males saw significantly higher proportions of sleep changes during the pandemic. Finally, analysis indicated there was no significant change in levels of psychological distress reported by 17–25 year olds. Although distress in 12–16 year old males and females significantly increased, these changes were minimal, and the effect sizes were small (see Table 2).

3.3 | Brief intervention sessions

As Table 3 shows, there was reduced service use during the pandemic period, but the average number of intervention sessions per young person was similar.

In total, during the pandemic Jigsaw delivered 8718 video sessions, compared to 4689 in-person sessions and 4189 phone sessions. Public health restrictions have influenced the modality of support provided across the pandemic period. At the start of the pandemic, most support was provided over the telephone and then by video, once the systems for this were put in place. As public health restrictions eased after the first lockdown and young people had the option of availing of in-person sessions (from July 2020), the proportion of in-person sessions increased rapidly, while phone sessions declined. In-person and video sessions remained popular up to December 2020. When further public health restrictions were introduced in January 2021, most brief interventions sessions moved back to phone and video.

As Table 3 shows, there was a significantly higher attendance rate overall during the pandemic period. High attendance for video sessions (84.8%) was the primary contributor to the increased attendance rate. The pandemic saw a diminished YSS response rate as the primary administration of the survey was email, rather than in-person during the last session at Jigsaw. However, there was no significant change in overall satisfaction score, and all modes of brief intervention support were highly rated, with no significant difference between in-person, video, phone and combined support, $F(3,593) = .737, p = .530$.

4 | DISCUSSION

This paper represents one of the first efforts to examine levels of engagement with a national youth mental health service during the COVID-19 pandemic.

As this investigation illustrated, despite concerns about a dramatic increase in presentations to mental health services, there was an overall decrease in referrals to Jigsaw services during the pandemic period, which is aligned to previous research from the early pandemic period (Clerici et al., 2020; McAndrew et al., 2020; McIntyre et al., 2020; Nicholas et al., 2021; Steward et al., 2020; Szmulewicz et al., 2021). An exception to this was the period between July to September 2020, when national restrictions were eased in Ireland, and referrals were 25% higher than the same period the previous year. However, the extent to which this can be attributed to the COVID-19 pandemic is unclear, as Jigsaw services have experienced an annual increase in demand of 18% since 2017. It is possible that some young people opted to access Jigsaw's new synchronous chat support service during the pandemic. This new service supported 2362 young people between June 2020 and March 2021, although previous research has identified this type of service reaches a unique client group who do not seek help or wait longer before seeking support from in-person mental health support services (Rickwood et al., 2017). Additionally, there were 344 732 users on Jigsaw's website and 1333 contacts to Jigsaw's national helpline during the pandemic period, indicating a significant cohort of young people required guidance on navigating mental health difficulties.

TABLE 3 Key information on brief intervention delivery during baseline and pandemic period

	Baseline	Pandemic	Sig.
Intervention sessions offered	$n = 30\ 488$	$n = 21\ 799$	
Average number of sessions $M(SD)$	6.6 (2.5)	6.6 (2.5)	$t(5567) = .00, p = .5$
$\%(n)$			
% Sessions attended	78.7 (24005)	82.7 (18037)	$\chi^2 = 129.5, p < .001^{***}$
Youth satisfaction survey	$n = 2582$	$n = 2039$	
Response rate	60.6 (1564)	30.2 (616)	$\chi^2 = 421.46, p < .001^{***}$
$M(SD)$			
Overall satisfaction ^a	67.22 (7.02)	66.9 (7.5)	$t(2179) = .494, p = .622$

*** $p < .001$.

^aSatisfaction score is out of a total satisfaction score of 75; 89.6% for baseline and 89.2% for the pandemic.

Importantly, this paper revealed some differences in the psychosocial characteristics of young people engaging with Jigsaw's brief intervention service during the pandemic period. Of note, significantly more females and adolescents were referred to Jigsaw, which is possibly because females and younger adolescents are more likely to seek help when they experience problems (Dooley et al., 2019; Dooley & Fitzgerald, 2012). Furthermore, there was a significantly higher proportion of young people aged 12–17 reporting anxiety as a presenting issue, which may indicate that those who are younger may be slightly more vulnerable to experience pandemic related anxiety. There was also an increase in sleep changes during the pandemic year for most groups. Additionally, 12–16 year olds who engaged with Jigsaw's brief intervention during the pandemic period were significantly more distressed, although this effect size was small. Indeed, several studies have reported increased anxiety among young people since the start of the COVID-19 pandemic (de Miranda et al., 2020; Jeffery et al., 2021; Nearchou et al., 2020; Pierce et al., 2020).

Jigsaw responded rapidly and effectively to the COVID-19 pandemic, and significant efforts were made to develop the infrastructure required to deliver therapeutic services online. This report demonstrates there was strong uptake of and satisfaction with both video and phone support, particularly during national lockdowns, indicating young people found these modes of service delivery acceptable. Overall, the attendance rate was higher during the pandemic period, with video support having the highest attendance rate (i.e., 84%). It is anticipated that online modes of delivering supports to young people will continue in Jigsaw beyond the current pandemic alongside in-person supports, as the current data illustrate there are many young people who express a preference for in-person support when this is possible. This fits with previous research which has demonstrated the readiness of young people to accept telehealth services, a lower cancellation rate this mode of support, but also some hesitancy amongst clinician for this mode of care (Nicholas et al., 2021).

Establishing the infrastructure to provide support to young people remotely did not come without challenges. As the findings show, wait-times for a brief intervention in Jigsaw increased slightly during the pandemic year, as appointments scheduled between March and June 2020 were rescheduled for a later date, and some young people opted to wait for in-person appointments when this mode of support was available. Additionally, a number of Jigsaw staff were redeployed to support Ireland's national health service with COVID-19 testing and contact tracing, and a national recruitment campaign for clinical staff was delayed by four months, resulting in depletion of clinical resourcing. Furthermore, a small number of staff were absent from work due to illness. Service efficiency was also temporarily impacted rolling out the technology to provide video support, changing processes to gather consent and evaluation data online, training staff, and reconfiguring buildings to support physical distancing. Indeed, the response rate for the youth satisfaction survey dropped to 30% during the pandemic period, and Jigsaw is continuing to explore ways of capturing feedback from young people online. However, all adjustments were aided greatly by having a pre-existing electronic case

management and evaluation system and some investment in technology before the pandemic period.

4.1 | Limitations

This study was conducted using data collected routinely in a clinical setting, and questions about the impact of COVID-19 on young people's mental health were not included. Thus, our ability to infer any increase in mental health difficulties due to the pandemic is limited. Further, the response rate for the satisfaction survey diminished during the pandemic period, meaning individuals most dissatisfied were less likely to provide feedback. Additionally, there was some missing data on mode of intervention as staff did not enter this information until these fields were made compulsory on the electronic data management system. Finally, while previous studies have indicated the majority of young people report significant reductions in distress and improvements in wellbeing following a brief intervention in Jigsaw, it was not possible to examine outcome data for different modes of support (Donnelly et al., 2019; O'Keeffe et al., 2015). Further research exploring the acceptability of phone and video support for young people is warranted.

4.2 | Conclusion

The COVID-19 pandemic been described as “unprecedented, prolonged, and unpredictable” (Puras, 2020), and the impact on young people's mental health needs to be considered as a priority. This paper has provided some insights into the experiences and response of a youth mental health service to this crisis. As youth mental health services begin to think about the long-term mental health needs of young people as a result of the pandemic, this type of dissemination is critical in helping services plan, adapt and develop new modes of service delivery.

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CONFLICT OF INTEREST

The authors declare no conflicts of interest.

DATA AVAILABILITY STATEMENT

Data sharing is not applicable to this article as no new data were created or analyzed in this study.

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