

Exploring the mental health experiences of young trans and gender diverse people during the Covid-19 pandemic

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ABSTRACT

Background: Both anxiety and depression have been identified as negative health outcomes associated with the distressing nature of the Covid-19 pandemic, especially among young people. Within this age demographic, trans and gender diverse people may be particularly vulnerable to pandemic-related mental health outcomes, such as anxiety and depression, due to the social challenges, gender dissonance, and poor mental health they experience. Furthermore, the social distancing measures impose several unique social and help-seeking challenges which may further contribute to the worsening of mental health. While there has been acknowledgment that vulnerable populations may be disproportionately affected by the pandemic, the experiences of trans and gender diverse youth have received very little empirical attention.

Aims: To explore the mental health impact of Covid-19 on the lives of young trans and gender diverse people in the UK.

Method: In total, 243 people took part in an online survey between May and July in 2020. Eighty-two people were removed due to providing insufficient data. The analyzed dataset therefore comprised of 161 respondents ranging from 16 to 25 years ($M=20$; $SD=2.68$). Participants were asked how social distancing measures had impact on their social lives, mental health and access to health services. They were also asked to complete validated measures of anxiety and depression.

Results: This study found that those who experienced a greater impact of the Covid-19 outbreak and its associated social distancing measures, reported poorer mental health. Lack of social support, negative interpersonal interactions, unsupportive and non-affirming living environments and the inability to access mental health support and gender-affirming interventions were all factors that were associated with poor mental health.

Conclusion: The findings provide specific direction for the tailoring of mental health service delivery to this population, noting the need for private, safe spaces in which young people can feel supported and have their gender identity affirmed.

KEYWORDS



Anxiety; coronavirus; Covid-19; depression; gender diverse; mental health; trans; youth

Introduction

The Covid-19 pandemic poses a global risk to mental health (World Health Organization (WHO), 2020a) and, identifying its impact on mental health is a scientific priority (Holmes et al., 2020). The psychologically distressing nature of the Covid-19 has been linked with reduced wellbeing and increased stress and anxiety, resulting in a proliferation of Covid-anxiety studies (e.g., Lee, 2020; Milman et al., 2020). Evidence suggests that as well as being correlated with both health-related and generalized anxiety, fear of Covid-19 is also linked with depression

(Lee et al., 2020; Wang et al., 2020). Consequently, there is an urgent need to support the mental wellbeing of community members to avoid a global mental health crisis (Choi et al., 2020).

However, the impact of the pandemic is not experienced equally across communities (O'Connor et al., 2020; Templeton et al., 2020; Van Bavel et al., 2020). While it is known that existing mental health conditions can place individuals at greater risk of mental distress during these unprecedented times (Brooks et al., 2020), less is known about the risk factors associated with other marginalizing characteristics, such as

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those experienced by trans and gender diverse youth (Bowleg, 2020). Understanding the nature and extent of this impact is critical given that existing evidence suggests young people in general may already be susceptible to the detrimental mental health outcomes associated with Covid-19 (Fancourt et al., 2020; Smith et al., 2020). As of 2019, the majority of young people in the United Kingdom (UK) aged 16–24 years are in some form of education, employment or training (Office for National Statistics (ONS), 2019a), with many still residing in the family home with parents (Office for National Statistics (ONS), 2019b). Developmentally, these years are crucial, and have been described as a period of emerging adulthood (Arnett, 2000), whereby young people look toward achieving key markers of transition to adulthood whilst negotiating the path of individuating from family (Arnett, 2000), a journey that is likely to have been severely affected by the Covid-19 pandemic. In this context, young trans and gender diverse people may be a particularly vulnerable group given the additional distress associated with body/gender dissonance, social challenges (e.g., discrimination, stigma, estrangement, isolation), and increased mental ill-health experiences (e.g., anxiety and depression; Cooper et al., 2020; Jones et al., 2019; Strauss et al., 2020). Yet, their experiences of the pandemic have received surprisingly little empirical attention (Fish et al., 2020), with the focus being more broadly on the LGBTQ+ population. This neglect may contribute to the persistence of health inequities for these individuals in the wake of the pandemic (Gorczyński & Fasoli, 2020). It has been suggested that in order to understand, and ultimately address, the impact of pandemic-related restrictions, such as quarantine and distancing, on the health and wellbeing of vulnerable groups there is a need to gather robust empirical evidence and to engage with the accounts of those with lived experiences of vulnerability (Holmes et al., 2020).

Challenges associated with gender diversity during Covid-19

Social support is known to be protective of poor mental health in trans and gender diverse people

(e.g., Pflum et al., 2015; Veale et al., 2017). More specifically, social support from family and friends has been identified as a predictor of quality of life (Davey et al., 2014), reduced depressive symptoms, suicidal ideation (Veale et al., 2017; Wilson et al., 2016) and increased mental well-being (Alanko & Lund, 2020). Support that is affirming of the young person's gender identity has been found to be a correlate of good mental health, with family connectedness reported as one of the strongest protective factors (Alanko & Lund, 2020; Olson et al., 2016; Veale et al., 2017). Connectedness to peers (i.e., those who also identify as trans and gender diverse) is also thought to be instrumental to a young trans and gender diverse person's mental health as it serves to buffer against experiences of stigma, discrimination and prejudice by providing group-level coping resources such as normalizing and validating emotional responses to distressing social encounters (Hendricks & Testa, 2012; Pflum et al., 2015). However, experts believe that Covid-19 restrictions that prevent people from having any social contact outside their household, are likely to reduce opportunities for trans and gender diverse youth to access vital social support although there is currently a need to support this with empirical data (van der Miesen et al., 2020). Young trans and gender diverse people are likely to have become estranged from important social networks where they experience positive interaction and are able to present as their authentic selves (Fish et al., 2020). Many organized peer support groups have been unable to continue due to limited resource in moving support online. The closing or reduction of face-to-face contact in schools, colleges, universities and workplaces may also result in reduced opportunities for vital social support that can mitigate against negative social interaction experienced while living in unsupportive and transphobic environments where those cohabiting (e.g., parents) may not affirm the young person's gender identity (Herman & O'Neill, 2020; LGBT Foundation, 2020; van der Miesen et al., 2020).

Alongside these social challenges, many trans and gender diverse people will experience significant distress due to dissonance of assigned and experienced gender which has been associated

with poor mental health (Cooper et al., 2020). Some of this distress can be managed through gender expression with haircuts and hair removal treatments, for example (Bradford et al., 2019). The inability to access these services due to social distancing regulations is likely to have a detrimental impact on mental health. For those wishing to engage in a medical transition, undergoing gender-affirming medical interventions such as hormonal treatment, top (chest) or bottom (genital) surgery has been found to alleviate poor mental health among trans and gender diverse people (Davis & Meier, 2014; Lindqvist et al., 2017; Ruppin & Pfäfflin, 2015). While not all trans and gender diverse people will wish to access gender-affirming medical interventions (Arcelus & Bouman, 2017; Beek et al., 2016), Covid-19 will undoubtedly increase waiting times for those seeking treatment (van der Miesen et al., 2020). Extremely long waiting times at gender identity clinics around the world are already a serious issue. Before Covid-19, UK waiting times were estimated to be 33–36 months (Bouman & Richards, 2013; National Health Services, 2020). The impact that delaying access to gender-affirming medical interventions has on mental health has consistently been a cause for concern under normal circumstances (Bauer et al., 2015) with this being exacerbated during the pandemic (van der Miesen et al., 2020; Wang et al., 2020). For many, gender-affirming surgeries have been canceled and due to the additional pressure this has put on an already overwhelmed waiting list, individuals seeking gender-affirming care over the next few years are likely to be substantially impacted (van der Miesen et al., 2020).

Given the significant challenges outlined above, this population will require greater mental health support over the course of the Covid-19 pandemic. However, trans and gender diverse people tend to receive suboptimal care in mental health services due to a lack of knowledge around gender diversity by healthcare professionals, and non-tailored treatment plans which delays them accessing timely and appropriate care (Government Equalities Office, 2018; Hoffman et al., 2009). Under the current circumstances, there is also concern about the effectiveness of mental health support for these young people as resource for

such support decreases and is increasingly delivered virtually (van der Miesen et al., 2020). This is likely to be exacerbated by general public health concerns over limited access to mental health services during the pandemic and the need for fast adaptation to effective remote delivery (Holmes et al., 2020; O'Connor et al., 2020). Many are also anxious about engaging in some virtual modes of mental health support (e.g., by telephone) due to a lack of a safe and private space to do so (Fish et al., 2020).

As noted above, in order to reduce the impact of the Covid-19 pandemic on vulnerable groups, it is necessary to provide reliable and robust multi-method evidence of their experiences that is both sensitive to lived experiences and effective at moving toward more equitable solutions (Gorczyński & Fasoli, 2020; Holmes et al., 2020). However, despite some promising initial qualitative research revealing the impact of the pandemic on the LGBTQ+ population in the context of online support resources (Fish et al., 2020), there is currently a lack of understandings about the specific impact of Covid-19 on trans and gender diverse youth meaning important nuances associated with gender identity and transition are not taken into consideration. Therefore, this study aimed to explore the impact of the Covid-19 pandemic on the mental health of young (16–25 years) trans and gender diverse people using an online survey employing both standardized psychometric measures and open-ended questions. This multi-method study will be the first to quantify the relationship between the impact of specific aspects of Covid-19 and mental health (specifically anxiety and depression) while participants' written accounts will illuminate *why* and *how* the Covid-19 pandemic has affected mental health.

Method

Participants and procedure

Young people, resident in the UK, that self-identified as trans or gender diverse aged between 16 and 25 years were recruited via a weblink to an online survey shared on social

media and the websites of UK-based population-specific support organizations.

Following ethical approval granted by the first author's institutional Research Ethics Committee, the survey was open between 3rd May and 4th July 2020. During this period, the UK experienced its highest rate of Covid-19 positive cases within the first wave of the pandemic (approximately 108,655; World Health Organisation (WHO), 2020b) and residents experienced the most stringent social distancing measures employed in the first wave. During the study period, people were only allowed to leave the house for essential shopping, exercise and medicine, before restrictions were eased in July 2020.

Measures

The survey employed in the study comprised of two parts. Part 1 was aimed at gathering quantitative data to explore the relationships between specific dimensions of experiences of the Covid-19 pandemic and mental health outcome variables (anxiety and depression). Part 2 was a series of open-ended questions designed to explore participants' accounts of their experiences in their own words in order to help elucidate any identified relationships between the quantitative variables whilst giving voice to the participants.

Quantitative measures

Anxiety was measured using the GAD-7 (Spitzer et al., 2006). Seven items (e.g., "Feeling nervous, anxious or on edge") assessed anxiety during the preceding two weeks on a 4-point Likert scale (0 = not at all – 3 = nearly every day). The sum of scores was calculated and higher score represented higher levels of anxiety. The scale has been found to have good reliability and validity in both general public and clinical samples, globally (Lowe et al., 2008). In the current sample, the scale was also found to be reliable ($\alpha = .91$)

Depression was measured using the PHQ-9 (Kroenke & Spitzer, 2002). Participants rated nine statements based on their feelings over the previous 2 weeks (e.g., "Little interest or pleasure in doing things") on a 4-point Likert scale ranging

(0 = not at all – 3 = nearly every day). The sum of scores was calculated and higher scores represented higher levels of depression. Previous studies have shown the PHQ-9 has excellent reliability and validity in primary care settings (Kroenke, Spitzer, & Williams, 2001). This was replicated in the current sample ($\alpha = .88$)

Impact of Covid-19 was measured using an 8-item study-specific tool created by the authors that captured experiences since the implementation of social distancing regulations in the UK. To develop the tool, expert articles were reviewed, and charities concerned with supporting young trans and gender diverse people were consulted. The measure captured impact in relation to three main areas: social support, living situation and service access (gender transition and mental health). A copy of the measure can be found in Table 3. People were asked to rate these 8-items on a 5-point Likert scale (1 = strongly disagree – 5 = strongly agree). The mean was calculated, and a higher score represented a greater degree of impact as a result of Covid-19. The reliability of the 8-items was acceptable ($\alpha = .68$)

Open-response questions: A series of open-ended questions were included that aimed to explore the impact of Covid-19 for this population. Firstly, where participants had responded 'yes' when asked if their living situation had changed, we asked them to explain this change. We then asked ten questions about their experience of the implementation of social distancing regulations, their mental health, their support needs and experiences of social support during the pandemic so far. These items have been provided as [supplementary information](#).

Demographic data were also collected from participants including age, gender, ethnicity, education/employment status, living situation, stage of social and medical transition, isolation status and whether the participants had been diagnosed with Covid-19.

Analysis

Quantitative analysis: IBM SPSS version 26 was used to conduct all quantitative analysis. First descriptive statistics were calculated for all socio-demographic and study variables. Normality

testing demonstrated that the data was not normally distributed and therefore when available, non-parametric tests were conducted. The impact of Covid-19 across the whole sample was analyzed by calculating the frequency of each response across the 8-item tool developed for this study. To determine the mental health impact of Covid-19 and the associated social distancing measures, hierarchical regression to control for age, gender and satisfaction with stage of transition was conducted. This variable was controlled for as it is well established that gender-affirming medical interventions are associated with alleviation of mental health symptoms in those who are treatment seeking (Davis & Meier, 2014; Lindqvist et al., 2017; Ruppini & Pfäfflin, 2015). Two separate models were analyzed with anxiety and depression as outcome variables. Level of significance was set at $p < 0.05$.

Qualitative analysis: A content analysis was conducted on the open-ended responses collected as part of this survey which has been found to be an effective form a qualitative analysis when attempting to address specific research questions (Schreier, 2012). Two of the authors independently coded the data and divergences discussed and initial themes developed. Themes were refined by discussion between all the authors.

Results

In total, 243 people took part in the online survey. Eighty-two people were removed due to providing insufficient data (e.g., only the consent page had been completed). The qualitative and quantitative dataset therefore comprised of 161 responses.

Descriptive statistics of sociodemographic variables

Sociodemographic information of the sample can be found in Table 1. The mean age of the whole sample was 20 years ($SD = 2.68$). The sample consisted of 64 people identifying as trans male (39.8%), 32 people identifying as trans female (19.9%). 55 (34.2%) people reported a gender identity that fell outside the binary (e.g., non-binary, gender queer) and therefore were categorized as gender diverse. One person

Table 1. Demographics of the whole sample (N = 161).

	Variable	n (%)
Education and working status	Full-time education	97 (60.2)
	Part-time education	1 (.6)
	Full-time employment	18 (11.2)
	Part-time employment	9 (5.6)
	Full-time self-employed	1 (.6)
	Part-time self-employed	4 (2.5)
	Unemployed	21 (13)
	Furloughed	3 (1.9)
	Missing	7 (4.3)
Living situation	With parent(s)/sibling	87 (54)
	Friends	16 (9.9)
	Spouse	12 (7.5)
	Own	13 (8.1)
	Other	16 (9.9)
	Missing	17 (10.6)
Living situation changed due to COVID-19	Yes	45 (28)
	No	110 (68.3)
	Missing	6 (3.7)
Isolation status	Only leaving house for essential reasons	136 (84.5)
	Key worker	7 (4.3)
	Isolation due to symptoms	3 (1.9)
	Shielding	3 (1.9)
	Other	5 (3.1)
	Missing	7 (4.3)
COVID-19	Yes – no formal diagnosis	15 (9.3)
	No	140 (87)
	Missing	6 (3.7)
Care of Gender Clinic	Yes	32 (19.9)
	No – on waiting list	69 (42.9)
	No – but have previously	6 (3.7)
	No – never	48 (29.8)
	Missing	6 (3.7)
Gender-affirming hormones	Yes	47 (29.2)
	No	104 (64.6)
	No due to COVID-19	5 (3.1)
	Missing	5 (3.1)
Blockers	Yes	14 (8.7)
	No	140 (87)
	No due to COVID-19	2 (1.2)
	Missing	5 (3.1)
Top surgery	Yes	10 (6.2)
	No	146 (90.7)
	Missing	5 (3.1)
Bottom surgery	Yes	3 (1.9)
	No	153 (95)
	Missing	5 (3.1)
Satisfied with stage of transition	Yes	13 (8.1)
	No	116 (72)
	Not sure	26 (16.1)

reported that they were not sure on their gender identity and $n = 9$ (5.6%) didn't answer the question. The majority were White $n = 144$ (89.4%).

Most of the sample were in full-time education ($n = 97$; 60.2%) and lived with their parent(s)/siblings in the family home ($n = 87$; 54%). Some of the young people had changed their living environments due to the Covid-19 pandemic ($n = 45$; 28%). An open-ended question demonstrated how many of these individuals had moved from university accommodation back to the family home during this time.

Most of the young people were following social distancing measures and during the time the data was collected were only leaving their home for essential shopping, exercise and medicine ($n=136$; 84%). Most of the sample had not had Covid-19 ($n=140$; 87%).

A large number of the young people were on the waiting list at a gender identity clinic ($n=69$; 42.9%), with the majority not taking gender-affirming hormones ($n=104$; 64%) or hormones blockers ($n=140$; 87%). Most had not undergone any gender-affirming surgery; top (chest) ($n=146$; 90.7%), bottom (genital) ($n=153$; 95%) (see Table 1).

Description of mental health in the study sample

In the current sample ($n=122$), the mean depression score was classified as moderately severe ($M=15.89$; $SD=6.74$) while the median score (Median = 16) was classified as severe. For anxiety, both the mean ($M=12.85$; $SD=5.90$) and median (Median = 14) were classified as moderately severe (Kroenke & Spitzer, 2002; Spitzer et al., 2006). The distribution of scores across the four classification categories can be seen in Figures 1 and 2. For both the anxiety and depression scale, most of the young people fell into the most severe category.

Impact of Covid-19

The mean score for this scale was 3.17 ($SD=.78$) and the median 3.25. Most participants reported that they had lost vital sources of support and were not able to access support in the same way they had prior to the implementation of social distancing regulations in the UK. In most cases, participants reported that those they shared a living space with were aware of their gender identity. Although some were living in supportive environments about an equal number were not. A similar trend was seen when participants were asked about living as their authentic selves in daily life. The majority of young people in this study were concerned about the impact Covid-19 and associated social distancing measure were going to have on their transition with many reporting difficulties accessing medical treatment relating to this. This was also true for supporting mental health. Many reported difficulties in accessing services (see Table 2).

Hierarchical regression analysis for impact of Covid-19 on mental health and wellbeing

Those who perceived a greater impact of the Covid-19 pandemic felt more anxious and

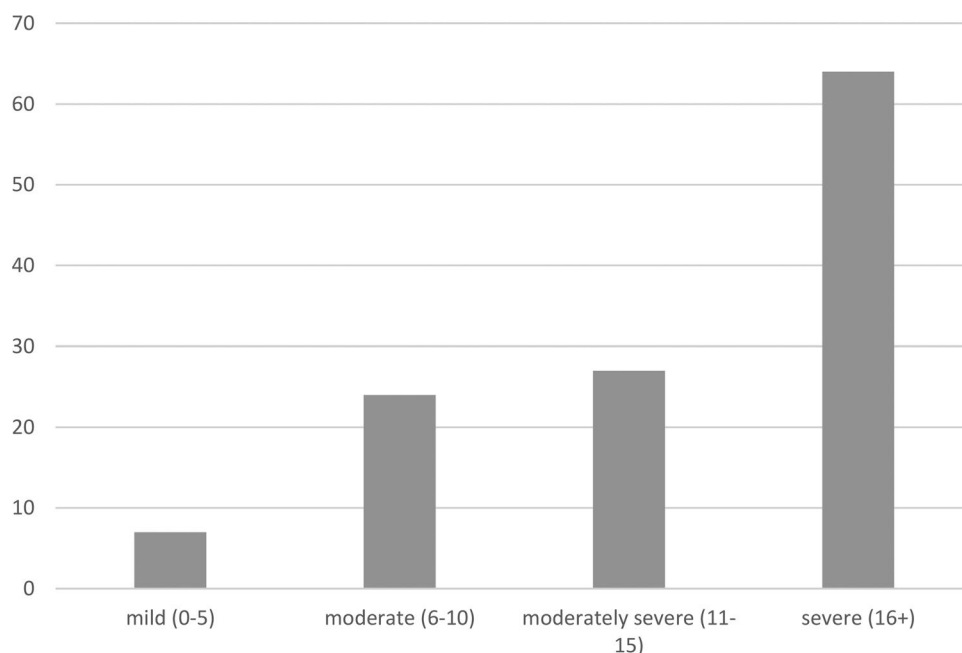


Figure 1. Distribution of scores across severity categories for the PHQ-9 in the current sample ($n=122$).

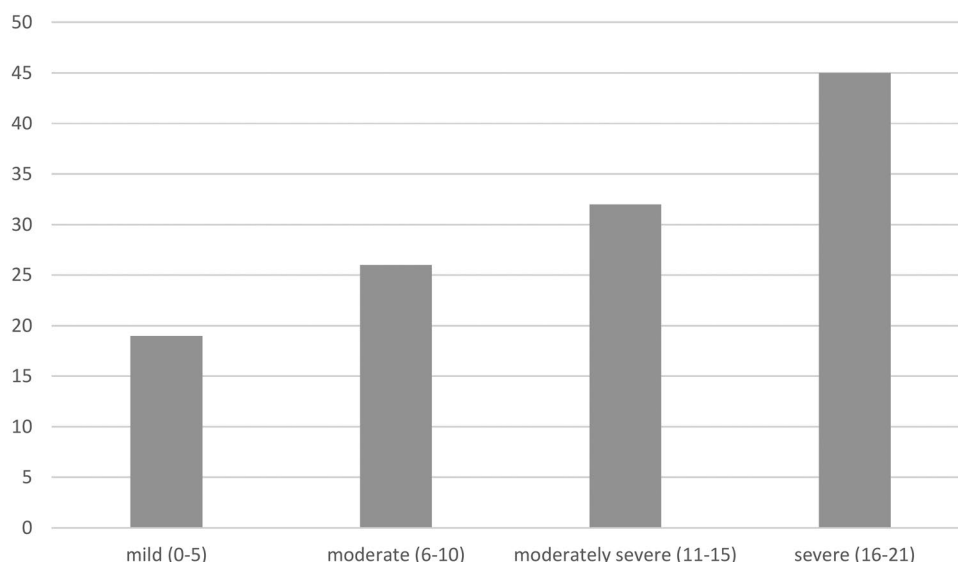


Figure 2. Distribution of scores across the severity categories for the GAD-7 in the current sample (n=122).

Table 2. Frequency (n) and percentage of responses (in parenthesis) for the Impact of COVID-19 measures.

Item	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Missing data
1. I am not able to receive support via outlets that I have previously (e.g., support groups, helplines)	13(8.1)	25(15.5)	28(17.4)	60(37.3)	17(10.6)	18(11.2)
2. I lost vital sources of support	19(11.8)	21(13)	24(14.9)	51(31.7)	28(17.4)	18(11.2)
3. People in my current living environment are unsupportive of my gender identity	59(36.6)	21(13)	19(11.8)	20(12.4)	24(14.9)	18(11.2)
4. People in my current living environment are unaware of my gender identity	87(54)	12(7.5)	6(3.7)	15(9.3)	23(14.3)	18(11.2)
5. I am not currently able to live as my authentic self in daily life	57(35.4)	21(13)	6(3.7)	25(15.5)	24(21.1)	18(11.2)
6. I am having difficulty accessing medical treatment relating to my transition (e.g., hormones)	19(11.8)	10(6.2)	31(19.3)	34(21.1)	49(30.4)	18(11.2)
7. I am worried about the impact the crisis is having on the progression of my transition	10(6.2)	7(4.3)	17(10.6)	40(24.8)	69(42.9)	18(11.2)
8. I am having difficulty accessing healthcare for my mental health	8(5)	14(8.7)	30(18.6)	38(23.6)	52(32.3)	19(11.8)

depressed, after controlling for age, gender and satisfaction with stage of transition (see Table 3).

Qualitative findings

Three main themes relating to mental health, interpersonal interactions and formal support were identified within the analysis. These can be found in Table 4 alongside exemplary quotes. Below is a summary of these findings.

From the qualitative comments provided by the young people, it was evident that mental health had deteriorated during the initial stages of the pandemic. Several participants specifically

Table 3. Regression model showing the association between gender-related impact of COVID-19 and mental health outcomes after controlling for age, gender and satisfaction with transition.

Impact of CV-19	F	R ²	B
Depression	6.71***	.189	.417***
Anxiety	6.70***	.195	.422***

Note: * $p < .05$, ** $p < .01$, *** $p \leq .001$.

spoke about the worsening of anxiety and depression symptoms. Loss of structure and routine by not being able to go to school, college, university or work was related to poor mental health. The extra time afforded to young people as a result of social distancing gave many unwelcome

Table 4. Themes and subthemes identified in analysis with supporting exemplar quotes.

Theme	Subtheme	Exemplar quotes:
Mental health experiences	Positive	<p>“Because of social distancing, I have less social anxiety when out in public.”</p> <p>“I’ve spent more time working on my mental health and recovery.”</p> <p>“I feel less guilty about not feeling up to doing activities with my friends since we’re not allowed to do them anyway.”</p>
	Negative	<p>“Feelings of depression, loss of direction and powerlessness have all been features of lockdown.”</p> <p>“The lack of routine and financial uncertainty has made my anxiety worse and I am worried about a relapse of eating disorders because of not being distracted”</p> <p>“It has gone downhill hugely...I have been so god damned anxious about leaving my house it is driving me and my family up the wall, I can’t go to a shop without having an anxiety attack.”</p> <p>“I spend a lot of time with myself. That means being able to pick apart every single detail of what is wrong with me.”</p>
Social consequences	Gender-affirmation (or lack of)	<p>“It made me go from being able to live as myself 90% of the time to now only being able to live as myself 15% of the time thanks to having to be around my parents.”</p> <p>“I want to discuss things with my family to help them understand, but it’s always met with hostility. I can’t even cry about my problems without being chastised any more.”</p> <p>“I have felt like because my family haven’t been extremely supportive or comfortable with me being trans that I have been alone. Even though my friends accept me I haven’t been able to call them and talk about for fear of my parents overhearing me.”</p> <p>“One thing that has majorly effected my experience and allowed it to be somewhat positive is my parents, they are really supportive and I know a lot of other trans youth don’t have that.”</p>
	Buffering effects of positive interaction	<p>“Normally, simply being around people who know my real gender and hearing them casually gender me correctly would be enough to make invalidating interactions with my family easier to bear.”</p> <p>“I live in an unsupportive household where college was my safe haven. Everyone there only knew me as my preferred name and pronouns and I didn’t realise how good that was for my health until it was gone.”</p>
	Already-impooverished social network	<p>“I never had friends or support to start with so I haven’t really lost anything.”</p> <p>“I don’t really have any support networks so social distancing etc hasn’t affected me regarding that.”</p> <p>“I think a lot of disabled people, especially disabled queers, will say that this ‘new normal’ is just our everyday and as such we do not see the change other than more resources actually be available (e.g., groups doing sessions online) and that when isolation is over we are just going to go back to not having those things and nothing will have changed”</p>
Formal support	3.1 Trans support networks	<p>“I have no access to physical LGBT groups and have lost a lot of gender-affirming support.”</p> <p>“Trans support group has stopped and don’t have the facilities to carry out the services remotely.”</p> <p>“Going to LGBTQ+ and QTIBPOC (queer, trans, intersex, black, people of colour) spaces, groups, events, kept me sane, because I live in a toxic lgbtq+phobic household. Now I can’t go out and do that. Virtual spaces are nowhere near the same. The connection isn’t there as much. You can’t feel someone’s energy via a computer screen.”</p>
	3.2. Mental health support	<p>“Most support has moved online, however this feels inaccessible if I am too anxious to use my voice over chats”</p> <p>“I had to stop CBT as I have extreme phone anxiety”</p>
	3.3 Gender-affirming treatments	<p>“I am unable to access services such as a haircut...vital for me in order to counteract dysphoria.”</p> <p>“My bottom surgery appointment was canceled and hasn’t been rescheduled”</p> <p>“Due to the measures that are taken for corona I cannot get my bloods done...I am currently on testosterone but I have procured it online illegally without guidance and because I cannot get my bloods done I cannot see how it is affecting me.”</p>

periods of self-reflection and rumination. Although in the minority, there were some participants that described how their mental health had improved due to social distancing. For some, the slower pace of life has allowed them to spend more time working on their mental health. Some found it to be a liberating experience with a marked reduction in social anxiety as they felt less pressure to engage in social activities and to conform to societal expectations of gender.

It was evident that for many, they were (unwillingly) spending significant amounts of time in

unsupportive environments where they could not live authentically, with experiences of mis-gendering being common. As a result of social distancing, social networks had diminished with positive interaction being infrequent. The positive interaction they previously experienced, perhaps at school, university or formal support group, acted as a buffer against the negative and none-affirming interactions. Some had sought affirming interactions in novel ways, for example, to cope with negative social support, one participant identified that “Validation Station’s daily

texts are also a huge help,” referring to a free text service set up in Spring 2020 by a team of non-binary young people offering daily gender validating text messages to more than 10,500 people during the initial Covid-19 lockdown period. However, this validating support was infrequent across the sample.

As a result of social distancing measures, many support organizations were unable to provide the peer support they once had and while some organization were able to deliver this virtually, the young people found this challenging to engage with. Some felt that the rapport built within face-to-face interaction couldn't be replicated online whereas others were not able to find a safe space in their living environment to engage in online sessions due to fear of non-affirming co-habitants overhearing. Without this vital affirming support, the young people felt invisible and invalidated. However, some of the young people highlighted how their social network was already impoverished and therefore nothing had been lost as a result of the social distancing regulations due to the isolation they already experienced.

With regards to formal mental health support, again the young people experienced barriers to engaging with this remotely. Timely referral to these services was low due to an overwhelmed system. Several of the young people were also experiencing high levels of social anxiety, especially with their voice, which prevented them utilizing telehealth interventions. Some of this social anxiety was also related to the young people not being able to access gender-affirming medical interventions that were vital to their gender expression and mental health. In some cases, this was related to non-medical interventions such as haircuts. However, it was clear that many young people were unable to access gender-related care to monitor hormones levels. Gender-affirming surgeries were also canceled with no new date offered. This was difficult to comprehend due to the already long waiting time experienced.

Discussion

The Covid-19 pandemic restrictions have likely had a substantial impact on all areas of life for young people who are at a crucial time in

starting their journey toward adulthood and independence. Trans and gender diverse youth have been identified as a group who may be disproportionately impacted by the global Covid-19 pandemic and therefore particularly vulnerable to experiencing poor mental health (Cooper et al., 2020; Fish et al., 2020). This study is the first to empirically support these assumptions as it found that young people who perceived a greater negative impact of Covid-19 restrictions experienced elevated anxiety and depression symptoms. Given that this population already experiences poorer mental health compared to their cisgender peers (Becerra-Culqui et al., 2018; Jones et al., 2019; Strauss et al., 2020), these findings are concerning. They also emphasize the need for interventions that are capable of alleviating poor mental health in this vulnerable group. This is of particular relevance given the uncertainties around how long social distancing restrictions will be required as well as the impact of a continuous and repeated cycle of easing and increasing restrictions. Such interventions should be sensitive to the specific concerns highlighted in the qualitative findings.

The qualitative comments elucidate specifically *how* and *why* Covid-19 has impacted these young people's lives and support specific recommendations on how this vulnerable population can be best supported during this time. Challenges with estrangement, non-affirming relationships, and access to healthcare are common among trans and gender diverse youth (e.g., Hoffman et al., 2009; Veale et al., 2017). Within this study, it was evident that Covid-19 restrictions had exacerbated these challenges whilst reducing access to protective factors such as social support and gender-affirming treatment.

Implications

Having access to positive social interactions that serve to mitigate against negative encounters (often experienced at home) was evidently important to these young people. While increasing opportunities to stay socially connected is needed, interventions should be curated to the needs of the population and sensitive to the

elevated social anxiety and threat this population experience. Creating a safe space that young people cannot only access discreetly, but have their gender identity and expression affirmed, is important. In the USA, an online chat-based support group for LGBTQ+ youth was found to facilitate safe and discrete support while at home during the Covid-19 pandemic (Fish et al., 2020). However, it is unclear how many of these young people identified as trans or gender diverse and given important nuances related to gender identity and transition highlighted within this study, interventions targeted specifically at this population are likely to be the most beneficial in creating a sense of connectedness. Such interventions might also be important for those young people who, like those in our study, welcomed the reduction in social contact imposed by social distancing as they felt less pressure to conform to gender ideals and hence experienced less social anxiety. When social distancing measures are relaxed, these young people may be particularly vulnerable to becoming isolated as they continue to avoid social interaction.

Distress associated with gender dissonance was also prevalent within this study. While these feelings were magnified by unsupportive interactions (e.g., misgendering), the inability to access gender-affirming care was also identified as a contributing factor. The impact of extended waiting times for gender identity services has continually had significant impact on mental health, with an increased waiting time between GP referral and access to specialist services resulting in almost two thirds reporting deterioration in mental health (Bauer et al., 2015). With waiting times increasing due to Covid-19 across gender identity services (Harrison et al., 2020), consideration of strategies to mitigate against the mental health impact of inevitably extremely long waiting over the next few years is vital.

To help manage poor mental health in this population, access to timely and effective formal mental health support may be required by some. However, this study revealed that access to mental health services was low. Comments from young people highlighted how the mode of delivery (e.g., via the phone) was not always accessible to them. In swiftly moving mental health support

services to remote delivery, it was likely that services were unable to consider and accommodate the needs of specific populations. Outside of the Covid-19 context, the lack of accessible mental health interventions for trans and gender diverse youth has already been highlighted. The use of web and text-based interventions have been suggested as more acceptable modes of delivery as they can reduce social anxiety that can be associated with traditional face-to-face or telephone delivered interventions (Perry et al., 2018). Due to anonymity, the online world also provides young people with a safe and non-threatening environment to express their gender identity (Arcelus et al., 2017; Griffiths et al., 2016). For sexual minority groups, web and mobile mental health interventions have been shown to be acceptable and feasible (e.g., Fleming et al., 2017; Lucassen et al., 2015). The need for acceptable interventions that are delivered via the web or mobile is even more prominent while the world continues to observe social distancing measures that restrict face-to-face mental health support. Given the lack of mental health interventions that have been specifically designed with young trans and gender diverse youth in mind, mental health service providers should consult with this population to ensure their services are accessible and acceptable (Lucassen et al., 2018).

Strengths, limitations and future research

While this is the first empirical study to demonstrate the mental health impact of Covid-19 on young trans and gender diverse people, there are some limitations to be considered. This study was of a cross-sectional nature, and therefore cause and effect cannot be determined. The measure that assessed the impact of Covid-19 was self-developed by the authors and hadn't undergone a formal development and validation process. Due to this, the measure did not contain subscales which represent the domains covered on the measure (social support, living situation and service access (gender transition and mental health)). Therefore, the quantitative analysis was not able to explore mental health outcomes across these specific domains. However, the qualitative analysis did go some way in explaining how the

pandemic has impacted on these domains of life and affected mental health. The study sample was also predominately White and according to intersectionality theory, young trans and gender diverse people who are also part of other minority groups (e.g., ethnic minority groups) may be exposed to 'double stigma' and thereby experience further vulnerability during this time (Bowleg, 2020). Within a Covid-19 context, intersectionality of marginalized identities should be explored further to reduce inequality. Future research should continue to explore the longer-term impacts of the Covid-19 pandemic on mental health outcomes.

Conclusion

This work is the first to investigate the impact of the Covid-19 pandemic and its associated restrictions on the mental health of young trans and gender diverse people using a multi-method approach. As expected, these restrictions have had a predominantly negative effect on this population's mental health. While this population is already vulnerable to poor mental health when compared to their cisgender peers, the current pandemic has brought an abrupt halt, or at least a significant delay, to young people's social and medical transitions. They also find themselves without vital sources of informal social support and with limited access to healthcare services. Our findings highlight the specific challenges that trans and gender diverse youth face while restrictions remain in place. They provide specific direction for the tailoring of mental health service delivery in particular to this population, noting the need for private, safe spaces in which young people can feel supported and have their gender identity and expression affirmed.

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Conflict of interest

The authors declare that they have no conflict of interest.

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