



DOCTOR OF CLINICAL PSYCHOLOGY (DCLINPSY)

Doctorate in Clinical Psychology: Main Research Portfolio.

1) What is the impact of the COVID-19 pandemic on symptomology for those with obsessive compulsive disorder? A systematic literature review; 2) Service evaluation of IAPT: exploring the demographic and clinical data of patients that only attended an IAPT assessment session; 3) “The pandemic came as an ambush!” Triggers for symptom worsening and protective factors for those experiencing sub-clinical obsessive compulsive disorder during the COVID-19 pandemic.

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Research Portfolio Submitted in Part Fulfilment of the requirements for the Degree of Doctorate in Clinical Psychology

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Impact of Covid Statement

Literature Review

The literature review was not impacted by the COVID-19 pandemic.

Service-Related Project

The service-related project was secondary data and therefore the COVID-19 pandemic did not have a direct impact on the design of the project. However, the COVID-19 pandemic meant that there was no additional support for extracting data from the research team (at the local IAPT service) as this was paused during the pandemic. Therefore, the researcher had to conduct this independently.

Main Research Project

Online interviews were planned from the start of the main research project therefore minimising disruption caused by the pandemic. There were some benefits to this decision, for instance people were able to participate internationally and the interviews may have been more accessible to participants. However, it is possible that if face to face interviews had been conducted, richer data may have been collected. This is due to it being easier to build rapport and pick up on non-verbal cues in face-to-face settings.

In addition, it is important to note the mental impact the COVID-19 pandemic had on the researcher's wellbeing. The pandemic caused additional stress, uncertainty as well as less contact with their support system and the course. This impacted work capacity at certain points during research.

Word Count

Literature Review	4,252 words
What is the impact of the COVID-19 pandemic on symptomology for those with obsessive compulsive disorder? A systematic literature review.	
Service-Related Project	4,657 words
Service evaluation of IAPT: exploring the demographic and clinical data of patients that only attended an IAPT assessment session.	
Main Research Project	4,768 words
“The pandemic came as an ambush!” Triggers for symptom worsening and protective factors for those experiencing sub-clinical obsessive compulsive disorder during the COVID-19 pandemic.	
Executive Summaries	902 words

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Abstracts

What is the Impact of the COVID-19 Pandemic on Symptomology for those with Obsessive Compulsive Disorder? A systematic literature review.

Background: The recent COVID-19 pandemic highlighted the negative impacts on those with obsessive compulsive disorder (OCD). Systematically reviewing the impact that the COVID-19 pandemic has had on individuals experiencing OCD would help inform formalised treatment for those suffering from OCD. Thus, this review aims to synthesis the literature to examine the impact of the COVID-19 pandemic on adults with OCD's symptomology.

Method: The literature search was conducted using APA PsycNet, Embase and ProQuest and $N = 33$ studies were included in this review. A narrative synthesis was used to analyse the results.

Results and Discussion: Analysis of results found that most studies reported an adverse negative impact on people with OCD's severity of symptoms. However, longitudinal studies focusing on later time points in the pandemic suggest a possible stabilisation or even improvement in symptoms. Future research recommendations include further longitudinal studies that investigate the trajectories of symptoms; factors that may improve or stabilise OCD symptoms during pandemics; research around the impact of lifting restrictions and investigation into who is particularly vulnerable.

Keywords: obsessive compulsive disorder; symptoms; pandemic; narrative synthesis.

Service Evaluation of IAPT: Exploring the Demographic and Clinical Data of Patients that Only Attended an IAPT Assessment Session.

Improving Access to Psychological Therapies (IAPT) services are situated in primary care and are often people's first point of contact with mental health services. As such, it is vital that individuals experience the intake and assessment process as a positive step towards seeking help, that instils hope for the therapeutic journey ahead (Hamilton et al., 2011). A particular IAPT service wanted to investigate who leaves therapy after only attending their assessment session to make any adjustments to their assessment process and address any potential inequalities. Service data collected between 01.11.19 and 01.11.20 pertaining to clinical and demographic information was extracted for patients who now (11.02.21) had only attended their assessment session. These patients were then split into two groups: 1. those that remained on the waiting list for therapy; 2. those that left the service after their assessment (assessment only; AO). Descriptive statistics for each group were then calculated in SPSS. In the AO group there were a higher proportion of males and people who did not disclose their ethnicity or sexuality and were assigned to low intensity treatment programmes. There were also more people whose symptoms were consistent with

major depressive disorder, generalised anxiety disorder and social phobia but fewer people who wanted treatment for long-term health conditions. This group also had a higher proportion of people who displayed risk of suicide. The most common discharge reasons for the AO group were no reason disclosed; patient reporting that they had improved and therefore not signing up to therapy and so not signing up to their SilverCloud (computerised CBT program); and patient opting to go to private therapy. This report offers recommendations to improve the assessment process and ideas for future research in consultation with a person who has personal experience of IAPT services.

Keywords: IAPT; dropout; non-attendance; demographics; assessment; service improvement.

“The Pandemic Came as An Ambush!” Triggers for Symptom Worsening and Protective Factors for Those Experiencing Sub-Clinical Obsessive Compulsive Disorder.

Background: The negative impact of the coronavirus pandemic on individuals with obsessive compulsive disorder (OCD) has been well documented (Benatti et al., 2020; Davide et al., 2020; Jelinek et al., 2021; Khosravani et al., 2021; Tandt et al., 2022; Wheaton et al., 2021). However, there is a dearth of in-depth research that explores the lived experience of people with OCD during the pandemic. In particular, an examination of potential triggers for OCD symptoms worsening and protective factors has not yet been explored. Therefore, the aim of the current study is to gain an in-depth insight into people with OCD’s perception of their triggers for their symptoms worsening and their protective factors.

Method: Thematic analysis was conducted on 19 interviews with people with OCD.

Results: Three themes were identified through this study. The first theme (A real threat!) and second theme (Everything was changing so I got worse!) captures people’s perceived triggers for their symptoms worsening during the pandemic. The final theme (People understood me.) summarises how people reached out for peer support and felt more understood by their family members during this distressing time and this was a protective factor for them.

Conclusion: This study has important clinical implications including the importance of a thorough assessment and peer support for those with OCD; and not stopping but instead adapting exposure and response therapy (ERP). Future research should include a longitudinal study examining the impact of the pandemic of those with OCD after the restrictions have been lifted and the effectiveness of ERP during pandemic.

Keywords: OCD, qualitative, thematic analysis, pandemic, COVID-19.

Literature Review

What is the Impact of the COVID-19 Pandemic on Symptomology for those with Obsessive Compulsive Disorder? A Systematic Literature Review.

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Proposed Journal: Clinical Psychology Review

This journal was chosen due to its' high impact factor (IF= 11.397) and the topic of this literature review is within the journal's scope. Please refer to appendix H for author guidelines.

Word count: 4,252

(Excluding abstract, figures, tables, and references)

Date: 28.08.2023

Obsessive compulsive disorder (OCD) is a psychological disorder characterised by obsessions (distressing and persistent thoughts) and compulsions (behaviour that aims to neutralise the obsessions; American Psychiatric Association, 2013). The content and focus of an individual's obsession often reflect the values they hold. For example, a parent with strong family values, may experience intrusive thoughts about their child being harmed. Such thoughts would be interpreted as abhorrent to the individual, as they could likely imagine nothing more catastrophic. OCD was first formally recognised by the diagnostic and statistical manual of mental disorders (DSM) in 1968, (previously referred to as obsessive compulsive neurosis; American Psychiatric Association, 1968). The prevalence of OCD is known to be around 1.2% (Subramaniam et al., 2013), and approximately 46% of those affected report experiencing contamination-based obsessions (Jalal et al., 2022).

Over the past 50 years the effect of contextual factors, such as culture, religion, and events at a local or global scale with potential repercussions for health, have been documented to impact the content of obsessions and severity of compulsions for those experiencing OCD (Dennis et al., 2021; Nicolini et al., 2017). In December 2019, coronavirus was first detected amongst patients in Wuhan, China (BMJ, 2023), the virus spread rapidly and by January 2020, it was declared an international public health emergency. By March 2020, a global pandemic had been declared and health campaigns focused on strategies such as minimising contact and increased handwashing to reduce the spread (GOV.UK, 2022). Governments introduced hard lockdown rules and the virus death toll and devastating effects were broadcast around the clock. For those experiencing OCD prior to the pandemic the news coverage and health messaging may have acted to legitimise and exacerbate OCD symptoms (Davide et al., 2020; Grant et al., 2022; Jelinek et al., 2021; Khosravani et al., 2021). In addition, people with OCD may have experienced an increased sense of moral responsibility during the pandemic, further leading to an increase in their symptoms (Jassi et al., 2020). The response to assist those with OCD at the time and since, has been reported to be poor, with reports of those with OCD feeling abandoned by mental health services (Tandt et al., 2021a). However, there is a wealth of literature that has been published on the topic of COVID-19 and OCD and reviewing the available literature could serve as a guide to clinically support those with OCD. It should be noted that there have been three previous systematic literature reviews on the impact of the COVID-19 pandemic on OCD. Linde et al. (2022) conducted a review on 79 studies and reported that overall, OCD symptoms worsened during the pandemic, although many other factors should be considered with the development on OCD symptoms. Guzick et al. (2021) analysed 67 studies and indicated that both people with previously diagnosed OCD and people within the general population experienced new obsessive-compulsive symptoms that focused on the COVID-19 pandemic. Moreover, Zaccari et al. (2021) did a

systematic review which focused on the impact of the COVID-19 pandemic on both adult and child OCD populations. This review analysed 39 studies and reported that the COVID-19 pandemic exacerbated OCD symptoms, particularly contamination-based symptoms.

However, these systematic reviews were conducted between January and June 2021. There has been a vast amount of literature that has been published on the COVID-19 pandemic in recent years (Harper et al., 2020) and many more studies focusing on the COVID-19 pandemic and OCD have been published since June 2021. In particular, many longitudinal studies focusing on later time points in the pandemic have recently been published that can provide valuable insights into how OCD symptomology might have progressed. In addition, Linde et al.'s (2022) review only utilised studies that included over 100 participants. This is likely to mean that qualitative studies, which tend to have fewer participants than quantitative studies (Creswell & Creswell, 2017), were excluded from this review. Moreover, Zaccari et al. (2021) excluded qualitative studies altogether. Qualitative research can provide unique insights into people's experiences and meaning they attribute to phenomena (Sutton & Austin, 2015) and therefore it is important for them to be included in systematic reviews for this topic area. In addition, Guzick et al. (2021) excluded case studies and series which again can give detailed insights into the development of symptoms.

Therefore, the current review aims to address the gap in the literature by also including studies that were conducted after June 2021, longitudinal studies which focus on later time points in the COVID-19 pandemic, qualitative studies, and case studies/ case series. The question that this systematic review focuses on is: what is the impact of the COVID-19 pandemic on people with OCD's symptomology?

Method

The protocol for this review was registered on PROSPERO (CRD42022302216). The reporting of this review follows PRISMA guidelines (Rethlefsen et al., 2019; Appendix A).

Search Strategy

The search strategy was developed in consultation with a librarian with expertise in systematic search strategies. Basic and index search terms for the COVID-19 pandemic were created, along with search terms for *obsessive compulsive disorder* and *pandemic*. The basic search strategy and full search strategy is presented in appendices B, C, D and E. The following databases were searched: APA PsycNet (PsycInfo and PsycExtra); Embase (Embase, PubMed and Medline) and ProQuest. Where full text versions were not accessible, they were sought via interlibrary loans. The reference lists of all included studies were searched by the first author to identify any further eligible studies.

Inclusion and Exclusion Criteria

Participants. Adults aged ≥ 18 years, with a diagnosis of OCD according to the DSM (American Psychiatric Association, 2013) or ICD (World Health Organisation, 2004) and/ or self-reported OCD. No restrictions were placed on co-morbidities.

Interest. Studies aiming to examine the impact of pandemics on OCD which included a standardised measure of either a. OCD symptomology or b. quality of life measures (for example, any measures around isolation or sleep difficulties experienced by the participants). All study designs were eligible for inclusion: qualitative, quantitative, and mixed methods.

Context. The COVID-19 pandemic which was declared a pandemic on the 11th of March 2020 (World Health Organisation, 2020). For context, a pandemic is described as a disease outbreak that affects a wide geographical area (generally worldwide); normally caused by a new virus or strain of virus that the population has little immunity to and has devastating effects such as a high death toll, social disruption, and economic loss (Association for Professionals in Infection Control and Epidemiology, 2021).

Grey literature. Thesis and conference abstracts are included if the full text is available.

Exclusion Criteria. Exclusion criteria were studies that are not available in the English language; books and reports/ guidance based on studies (and not primary empirical research studies themselves).

Selection of Studies and Data Extraction

The search was conducted in January 2023. All identified studies were imported into Covidence Systematic Review Software (Covidence, 2023). The title and abstracts of all identified reports were screened by the first author (KW), a second reviewer autonomously (JC) screened 25%. At the full text review, all records were reviewed by the first author and 15% by a second reviewer (JM). All discrepancies were resolved through discussion. Data extraction of included studies was conducted by the first author. The following data was extracted for each study: the pandemic the study focused on; the country that the study took place in; participant's demographic details (number of participants, age, gender, ethnicity, sexuality, religion, relationship status and employment status); the recruitment method; design and data collection method; how participants were diagnosed and when their onset of OCD was and outcomes (quantitative and qualitative).

Assessment of Methodological Quality

The quality of included studies was assessed via the Mixed Methods Appraisal Tool (MMAT, Version 2018; Sirmiveh et al., 2012). This tool was chosen due to the range of research designs included in this review. A second reviewer autonomously rated 25% of the records in accordance with the MMAT (Sirmiveh et al., 2012). A record was rated as high quality if it received a score of 4/5 or above; medium quality if it received a score of 3/5 and low quality if it received a score of 2/5 or below.

Synthesis

Due to the breadth of study design and varied methods employed within included records, a narrative approach was selected to synthesise the findings. The synthesis was planned to be structured as follows: 1. Characteristics of included studies and 2. Impact of the COVID-19 pandemic on OCD symptoms.

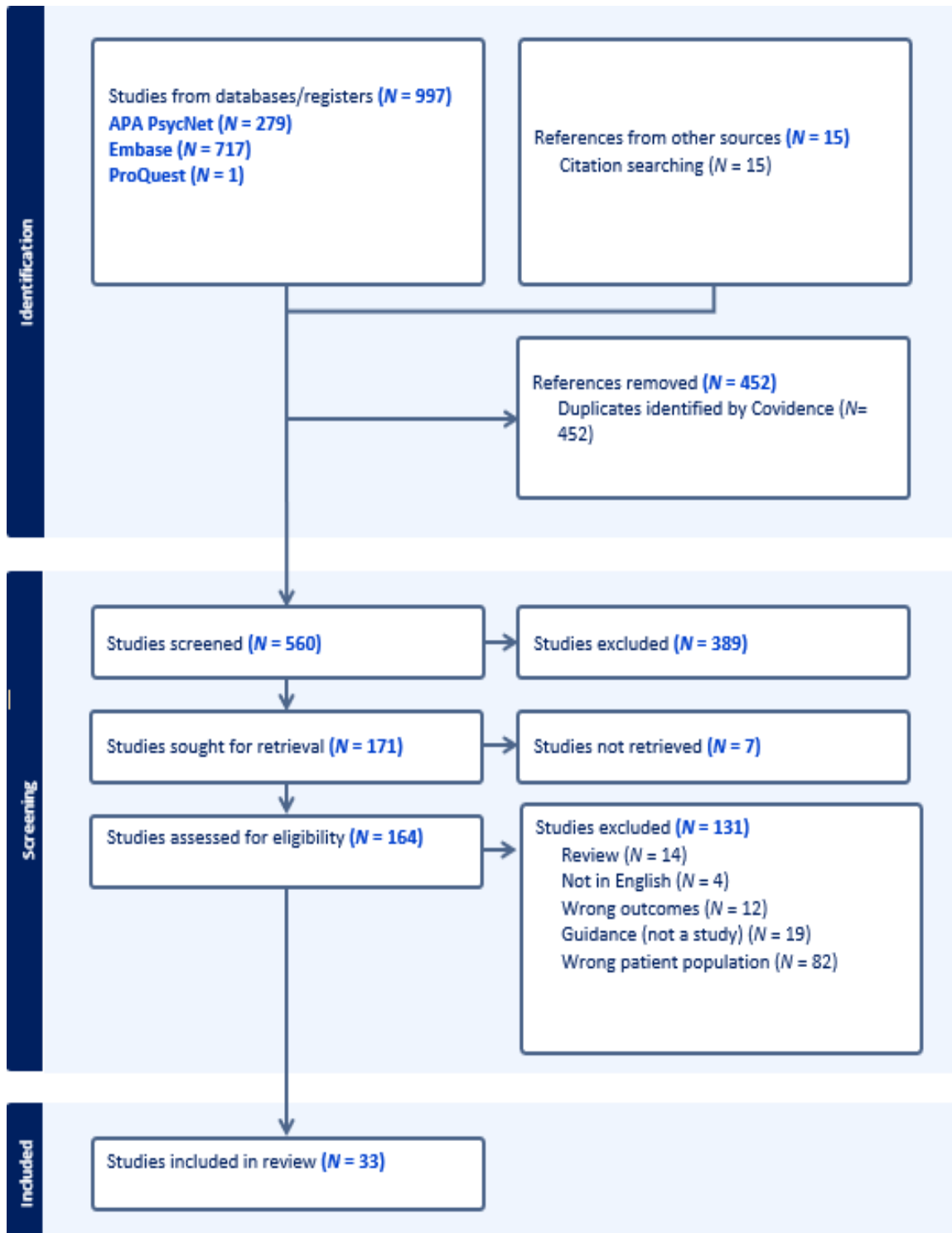
Results

Searches

The initial search of all sources retrieved a total of $N = 997$ records. Duplicates ($N = 452$) were removed automatically by Covidence (Covidence, 2023). A total of $N = 35$ records were included, after exclusion resulting from title and abstract screen ($N = 389$) and full text screen ($N = 131$) studies were excluded at the full text review stage. The full selection process is presented in Figure 1.

Figure 1

PRISMA 2020 Diagram of Study Identification and Selection (Page et al., 2021)



Participant Characteristics

Across the studies, there was a combined total of 3,601 participants. The sample was composed of $n = 2,048$ female, $n = 1,168$ male, $n = 22$ gender diverse and $n = 4$ studies did not report the gender of their participants. The participants ages ranged from 21 – 73 years old. In

most studies ($n = 18$) participants were described to have had OCD prior to the pandemic. However, some studies ($n = 3$) reported participants receiving an OCD diagnosis during the pandemic, or after contracting the virus. In most of the included studies ($n = 19$) participants had been diagnosed with OCD by a clinician. Of the remaining studies, how OCD was assessed or diagnosed was predominantly not reported ($n = 12$), whilst a small number ($n = 2$) relied on participants' self-reported diagnosis .

Across the studies, information about the participants' ethnicity was largely unreported. Only seven studies reported participants' ethnicity. Of these, $n = 5$ studies' largest ethnic group was White ($n = 382$ participants; Brotman et al., 1988; Jain et al., 2021; Kaveladze et al., 2021; Moreira-de-Oliveira et al., 2022; Wheaton et al., 2021). Followed by Chinese ($n = 1$ participant; Lim et al., 2020) and Qatari ($n = 11$ participants; Siddiqui et al., 2022).

Religious orientation was reported in $n = 2$ studies. Purnama et al. (2021), in their case study, reported that their participant was Moslem Javanese. Chakraborty and Karmakar's (2020) longitudinal study reported that $n = 35$ participants were Hindu and $n = 45$ were Muslim. None of the studies reported their participant's sexuality.

Design

Most studies employed a cross-sectional ($n = 16$) or longitudinal ($n = 9$) design and the remaining $n = 8$ studies were case studies or case series. In depth reports of participants experiences were captured in $n = 10$ qualitative studies.

Outcome Measures

A range of outcome measures were used, making it difficult to compare findings across studies. However, specific to OCD symptom severity, the Yale-Brown Obsessive Compulsive Scale (Y-BOCS; Goodman et al., 1989) was used by $n = 13$ studies. Some studies, $n = 5$, also used their own measures of symptoms (often using an amalgamation of validated outcome measures) specifically developed for their study (Benatti et al., 2022; Jelinek et al., 2021a; Littman et al., 2020; Quittkat et al., 2020).

Quality assessment

Only $n = 1$ (3.03%) study did not pass the screening stage of the MMAT. Of the remaining $n = 32$ studies, 93.94% ($n = 31$) were rated as high quality and 3.03% ($n = 1$) were rated as medium quality. Table 2 presents the characteristics and MMAT score of each included study.

Table 2

Characteristics of Included Studies

ID	Reference, pandemic, country.	Participant's demographics (N), mean age, gender (G), ethnicity (E), sexuality (S) and religion (R).	Relationship Status (RS) and Employment Status (ES).	Recruitment Method (RM), Design (D) and Data Collection Method (DCM).	Diagnosis (Diag) and Onset (O).	Outcomes: (Quant, Qual and QoL).	MMAT score
Case Studies							
1	Alkhamees (2021), COVID-19, Saudi Arabia.	N: 1 Age: 62 G: M E: NR S: NR R: NR	RS: Married ES: Retired	RM: Participant presented to clinic. D: 3 months. DCM: Qualitative description of symptoms.	Diag: Formally diagnosed by a clinician. O: After contracting COVID.	Quant: N/A Qual: Intrusive thoughts around his nephew being his son which resulted in compulsive behaviours around phoning his nephew. He also needed to constantly check things, e.g., car door locks.	QS 4/5
2	French & Lyne (2020), COVID-19, Ireland.	N: 1 G: F Age: 30s E: NR S: NR R: NR	RS: Single ES: Unemployed	RM: Presented for acute assessment at a local psychiatric hospital. D: NR. DCM: Qualitative description of symptoms.	Diag: Met ICD-10 criteria for OCD (Contamination-based OCD). O: Twenties (pre-pandemic).	Quant: N/A Qual: Described 3-week deterioration of previously well-controlled symptoms: reluctance to leaving home; intensifying handwashing; eating only canned foods.	QS 4/5
3	Jain et al., (2021), COVID-19, NR.	N: 2 G: 1M & 1F Age: 73 & 36 E: White S: NR R: NR	RS: NR ES: NR	RM: Presented to a clinic or inpatient ward. D: NR DCM: Qualitative description of symptoms.	Diag: NR O: 1 had history of OCD pre-pandemic; 1 diagnosed during pandemic.	Quant: N/A Qual: First person recurrent urges to clean their apartment (spending hours per day cleaning) and washing their hands 20 times a day. Second person: cleaned their room, spending 8-10 times a day (about 6 hours of their day) and feeling extremely worried about their health, social distancing, and current events.	QS 4/5
4	Kumar & Somani (2020), COVID-19, India.	N: 1 G: M Age: 28 E: NR S: NR R: NR	RS: NR ES: NR	RM: Presented to a psychiatric outpatient department. D: NR DCM: Qualitative description of symptoms.	Diag: Previously diagnosed by a psychiatrist. O: Age 15 (pre-pandemic).	Quant: N/A Qual: Washing hands many times a day; feelings of being contaminated.	QS 4/5
5	Kumar et al. (2021), COVID-19, India.	N: 1 G: M Age: 22 E: NR S: NR R: NR	RS: Single ES: NR	RM: NR D: NR DCM: Qualitative description of symptoms.	Diag: NR O: Diagnosed in 2018 (pre-pandemic).	Quant: N/A Qual: The individual was asymptomatic Jan 2020 – June 2020 and then symptoms re-emerged: obsessive imagery around seeing Gods and Goddesses naked and believing that this will cause his family to be ill; compulsions around excessive handwashing.	QS 4/5
6	Lim et al. (2020), COVID-19, Singapore.	N: 1 G: F Age: 59 E: Chinese S: NR R: NR	RS: NR ES: NR	RM: Presented to the Institute of Mental Health. D: NR DCM: Qualitative description of symptoms.	Diag: NR O: Pre-pandemic.	Quant: N/A Qual: Distressing thoughts around contracting OCD.	QS 4/5
7	Purnama et al. (2021), COVID-19, Indonesia.	N: 1 G: F Age: 26 E: NR S: NR R: Moslem Javanese	RS: NR ES: Employed	RM: Presented to an outpatient psychiatry unit. D: NR DCM: Qualitative description of symptoms.	Diag: Diagnosed at an outpatient psychiatry clinic. O: During pandemic.	Quant: N/A Qual: Compulsions around repetitive hand washing (10 times an hour) and showering (5 times a day). She spoke about feeling filthy all the time and feels anxiety when she tries to stop performing compulsions.	Did not pass the screening question s.
8	Tiuvina et al. (2021), COVID-19, Russia.	N: 1 G: M Age: 25 E: NR S: NR R: NR	RS: Recent breakup ES: NR	RM: Presented to a healthcare service. D: NR DCM: Qualitative description of symptoms.	Diag: Diagnosed at admission according to the ICD-10. O: Diagnosed during the pandemic.	Quant: N/A Qual: He took social distancing very seriously, e.g., wearing a mask and avoiding people with symptoms. He brought loads of protective equipment and only left the house to take out the rubbish and held his breath whilst doing this. He also used antiseptic on his clothes.	QS 4/5

Cross-Sectional Studies							
9	Benatti et al. (2020), Italy.	N: 123 G: 68M 55F Age: 39.88 E: NR S: NR R: NR	RS: NR ES: NR	RM: Recruited from a tertiary clinic. D: NR DCM: Brief interview around OCD symptoms.	Diag: Psychiatric assessment in a tertiary clinic. O: NR	Quant: 35.8% reported a worsening of OCD symptoms. Of these 29.5% developed new obsessions and compulsions. 40.9% experienced re-occurring of obsessions and 29.5% re-experienced past compulsions. Qual: N/A	QD 5/5
10	Brewer et al. (2022), COVID-19, UK.	N: NR G: NR Age: NR E: NR S: NR R: NR	RS: NR ES: NR	RM: Online posts about OCD on reddit. D: 01.03.2020-01.06.2020 DCM: Thematic analysis on reddit posts.	Diag: Self identify as having OCD. O: NR	Quant: N/A Qual: Themes which were reported = increasing obsessive behaviour due to COVID; COVID influencing anxiety and depression; normality and justification; hyperawareness; and interpersonal conflict.	QS 5/5
11	Hassoulas et al. (2022), COVID-19, UK.	N: 254 G: NR Age: NR (although no. of people in age range was reported) E: NR S: NR R: NR	RS: NR ES: NR	RM: Through OCD charities and organisations. D: April 2020 – July 2020. DCM: Online survey using: OCI-R; SHAI; COVID-19 IM and some qualitative questions.	Diag: OCI-R was used. O: NR	Quant: OCI-R means: total = 36.01; washing = 7.18; checking = 6.04; ordering = 6.08; neutralising = 4.05; obsessional = 8.72; hoarding = 3.93. SHAI Means: Total = 27.31; health anxiety = 8.39; health beliefs = 2.95. COVID Impact Measure: handwashing = 10.84. Distress Avoidance = 5.47 Qual: N/A	QD 5/5
12	Højgaard et al. (2021), COVID-19, Denmark.	N: 201 G: 69 M 132F Age: 39.66 E: NR S: NR R: NR	RS: NR ES: 82 Employed	RM: Members of the Danish OCD association D: 06.04.20-26.04.20 DCM: 47 self-report online survey: based off the Y-BOCS and questions around other aspects of OCD, experience of the pandemic and quality of life measures.	Diag: previous diagnosis of OCD O: Duration of OCD: Less than 5 years = 13. Between 5-10 years = 24. More than 10 years = 164	Quant: 61.2% reported an increase in OCD severity levels. 10.4% reported an improvement in OCD levels. Qual: N/A	QD 5/5
13	Jelinek et al. (2021a), COVID-19 Germany.	N: 394 G: 101M, 291F, 2GD Age: 37.76 E: NR S: NR R: NR	RS: NR ES: NR	RM: Recruited from OCD clinics and charities. D: 23.04.2020 – 18.05.2020 DCM: Online survey: OCI-R; PHQ-9 and a new questionnaire called OCD in the COVID-19 pandemic.	Diag: NR "Non-washers" = 171 and "washers" = 233. O: Average illness duration = 17.4	Quant: 71.8% of the sample reported an increase in OCD symptoms. "Washers" more significantly increased in OCD symptoms compared to "non-washers" ($p = .018$). The statements "Corona has also increased some of my other fears" (48.32 %) and "Other people are now realizing how dangerous viruses and germs are" (36.95 %) received the highest endorsement by participants in the total sample. Qual: N/A	QD 5/5
14	Kaveladze et al. (2021), COVID-19, NR.	N: 196 G: 35M; 115F; 11 GD Age: 24.77 E: 74.1% were White S: NR R: NR	RS: NR ES: NR	RM: Anonymous online OCD peer support communities and posts on OCD-related social media pages. D: 28.06.2020-10.08.2020 DCM: Online Survey based on the DOCS and change since the pandemic began. Participants also rated how much their OCD symptoms made living during the pandemic more difficult, with scores ranging from 0 (not at all more difficult) to 4 (much more difficult).	Diag: Either professionally diagnosed; self-diagnosed or suspected they had OCD. O: NR	Quant: 92.9% (182/196) of the participants experienced their OCD symptoms worsening since the COVID-19 pandemic began ($p = .001$). 95.5% (171/179) of the participants felt that having OCD made it more difficult to deal with the pandemic, and 36.3% (65/179) of them indicated that having OCD made it a lot more difficult. Qual: N/A	QD 3/5

15	Littman et al. (2020), COVID-19, Israel.	N: 65 G: 27M 38F Age: 29.42 E: NR S: NR R: NR	R: NR E: NR	RM: Online survey D: 29.03.2020 - 20.04.2020 DCM: Online survey on questions around OCD.	Diag: Diagnosed by a licensed professional. O: Mean time of onset of symptoms: 4.07 years.	Quant: 21 reported an improvement; 21 reported that their symptoms worsened and 23 reported no change. Of the participants that reported change, 70% reported that this change was mild (16 in improving group and 14 in worsening group). Under 30% reported a significant change 5 in the improving group and 7 in the worsening group. Qual: N/A	QD 5/10
16	Pinciotti et al. (2022), COVID-19, USA.	N: 39 G: 15M; 23F; 1GD Age: NR (although age ranges reported) E: NR S: NR R: NR	R: NR E: 11 employed or a student.	R: From 7 OCD specialist intensive outpatient or partial hospitalisation or residential treatment programmes. D: NR DCM: Questionnaire around OCD which was adapted from the COTA which aims to assess different impacts of COVID.	Diag: NR O: NR	Quant: More significant impact on healthcare providers compared to those with diagnosed OCD. The most frequently endorsed difficulties were uncertainty about the future (84.6%); choosing not to attend social events (73.0%); spending more time online related to coronavirus (66.7%); making changes to their normal daily routine because of coronavirus (65.8%). 48.7% of patients reported that their mental health had worsened. Qual: N/A	QD 5/5
17	Quittkat et al. (2021), COVID-19, Germany.	N: 48 G: NR Age: 28.28 E: NR S: NR R: NR	R: 24 in a relationship E: Employed	R: University press releases; email lists; outpatient departments; psychotherapist associations; self-help groups amongst other places. D: 02.04.2020 - 06.05.2020 DCM: Online survey around people's perceptions of the impact of COVID on their symptoms and whether they need more therapeutic support.	Diag: NR O: NR	Quant: Perceived changes in mental health: 8.51% felt it had considerably worsened; 27.66% = slightly worsened; 31.91% = same; 21.28% = slightly improved; 10.64% = considerably improved. Increased need for therapeutic support: yes = 34% and no = 66%. Qual: N/A	QD 5/5
18	Sharma et al. (2021), COVID-19, India.	N: 240 = pandemic cohort (PC); 207 = historical controls (HC) G: PC = 151M HC = 135M Age: PC = 32.28 NC = 32.97 E: NR S: NR R: NR	RS: NR ES: NR	RM: Patients who presented at a tertiary care service. D: 01.10.19 - 29.10.20 DCM: Y-BOCS	Diag: NR O: PC = Average age of onset: 21.44; average age of duration: 10.92	Quant: PC and HC did not differ in the trajectories of the Y-BOCS ($p = 0.225$). Only 6% of patients reported COVID-19 themed symptoms. Qual: N/A	NRS 4/5
19	Siddiqui et al. (2022), COVID-19, Qatar.	N: 36 G: 11M; 25F Age: 32.28 E: 30% Qatari; 19.5% Egyptian; 13.9% Indian S: NR R: NR	RS: NR ES: NR	RM: A search was conducted for people with OCD who are registered with adult mental health services. D: January 2021 DCM: Interviews by 2 psychiatry trainees based on the Y-BOCS.	Diag: Pre-existing primary diagnosis of OCD (contamination based). O: 58.3% of the sample had OCD for more than 10 years.	Quant: Pre-pandemic Y-BOCS scores = 15.64 and during the pandemic = 18.08 ($p = .11$). Those who had OCD for over 10 years, had a significant increase in scores from pre to during the pandemic (mean increase = 5.54). Qual: N/A	QD 5/5
20	Tandt et al. (2021b), COVID-19, Belgium.	N: 22 G: 9M 13F Age: 32.9 E: NR S: NR R: NR	R: 10 single; 2 relationship (not living together); 4 living with a partner; 5 married and 1 separated E: 5 employed; 8 unemployed (health related); 3 unemployed; 1 retired; 3 students; 2 others.	RM: Participants were recruited through the Centre for OCD of the Ghent University Hospital (UZ Gent) located in the Dutch speaking part of Belgium. D: April-May 2020 DCM: Thematic analysis on qualitative interviews.	Diag: Previous diagnosis of OCD. O: Mean symptom duration of 18 years.	Quant: N/A Qual: Five themes identified: 1. Coping skills were challenged, too much or too little exposure to obsessional concerns. 2. Changing point of reference: confusion and legitimization of OCD behaviour. 3. Distress but also relief in some areas. 4. Changes in accessibility and nature of therapy: perils and merits of online treatment. 5. Developing a new equilibrium in the family.	QS 5/5

21	Tükel et al. (2022), COVID-19, Turkey.	N: 30 G: 11M 19F Age: 34.1 E: NR S: NR R: NR	RS: 11 married ES: 23 not working	RM: Patients at the Outpatient Clinic of Psychiatry Department of Istanbul University Faculty of Medicine. D: September 2020 – January 2021 DCM: The change in OCD symptom severity as rated on a 3-point Likert scale. Fear of COVID-19 scale; obsession with COVID-19 scale; Y-BOCS; BABS; HRA; HRD.	Diag: Diagnosed with OCD according to DSM-5 and had to score 16 or higher on the Y-BOCS. O: Mean age of onset: 21.1 Mean duration of illness: 13 years.	Quant: 10% reported their symptoms had improved, 30% reported not changed and 60% reported a worsening of symptoms. Those with contamination obsessions: 9.1% improved; 22.7% no change and 68.2% worsened. Qual: N/A	NRS 5/5
22	Tulacı 2022, COVID-19 Turkey.	N: 58 G: 27M 31F Age: 32.1 E: NR S: NR R: NR	RS: 31 married ES: 42 working; 9 not working; 7 students	R: Attendance at a specific OCD outpatient clinic of Balikesir Atatürk Training and Research Hospital, Balikesir, Turkey. DCM: Interviews: 01.07.2020 – 15.08.2020. Interviews were compared to the participant's last clinical data obtained from the medical records before March 11, 2020. DCM: In person interviews which consisted of the Y-BOCS; DOCS and BABS.	Diag: Had a diagnosis of OCD and attended an OCD outpatient clinic. O: Had a stable condition for three months at their last evaluation before COVID.	Quant: 39.7% of participants increased in symptom severity according to the Y-BOCS ($p = 0.002$). 44.8% remained the same and 15.5% decreased. Two patients developed a new obsession (symmetry type and obsession type). Scores on the DOCS contamination dimension also increased ($p = .004$) and BABS-Total scores increased ($p = .004$). Qual: N/A	QD 5/5
23	Van Ameringen et al. (2022), COVID-19, online: North America; South America and Europe.	N: 417 G: 98M 312F Age: 31.4 E: NR S: NR R: NR	RS: NR ES: NR	RM: Online survey D: May 2020 - July 2021 DCM: Questions around OCD symptoms and pandemic experiences were asked using a 5- or 6-point likert scale. The OCI-R; GAD-7 and PHQ-9 were also used.	Diag: Had to be diagnosed with OCD at some point in their life (43.2% had contamination-based OCD). O: NR	Quant: Perceived decrease of symptoms (% of sample): repetitive behaviours (0.2%), intrusive thoughts (2.4%) and both (2.9%). Perceived increase of symptoms: Repetitive behaviours (6.5%); intrusive thoughts (22.8%) and both (47.2%). 6.6% reported an increased use in medication and 11.3% reported an increased use in psychotherapy. Qual: N/A	QD 5/5
24	Wheaton et al. (2021), COVID-19, USA.	N: 252 G: 89.4% F Age: 31.31 E: 85.3 % non-Hispanic White, 2.0 % African American, 8.7 % Hispanic, 3.2 % Asian/Pacific Islander, and 0.8 % "Other". S: NR R: NR	RS: NR ES: NR	RM: Online survey which was advertised on social media; websites and web forums. D: 01/04/2020 - 12/08/2020 DCM: Online survey: both qual and quant questions: COVID-19 threat scale; DOCS and DASS.	Diag: Self-identify as having OCD. O: NR	Quant: 76.2% of participants reported that their OCD symptoms had worsened since the pandemic according to the DOCS ($p < .001$). The negative impact was strongly linked to responsibility for harm and contamination. The OCD group, compared to a community control sample, reported heightened concerns about COVID-19. A lot of participants reported that the pandemic had interrupted their OCD treatment, however they were mostly satisfied with how their healthcare professionals had handled the crisis. Qual: Themes from qualitative questions: worsening of OCD symptom severity (82 people); emergence of COVID-19 related OCD symptoms (34 people); worsening of OCD symptoms unrelated to COVID-19 (17); increase in general anxiety and stress (36); minimal or no impact on OCD (23); negative impact of isolation/ disruption of routine (22); worsening of comorbid conditions (16); concern for family members (15); difficulty determining rational responses from excessive concerns (11); helpful effects of treatment (10); helpful effects of treatment (10).	MM 5/5

Longitudinal Studies							
25	Alonso et al. (2021), COVID-19, Spain.	N: 127 G: 59M 68F Age: 42 E: NR S: NR R: NR	RS: 55 single, 59 married, 13 divorced/widowed. ES: 44 paid employment; 10 self-employed; 4 students; 16 unemployed and 53 pensioners.	RM: Adult patients who attended a specialist OCD clinic. D: Participants were assessed at least one year before the pandemic took place and then again between April and May 2020. DCM: Y-BOCS and structured clinical interview.	Diag: Two independent psychiatrists checked participants met OCD criteria using the Structured Clinical Interview for the DSM. O: Mean age of onset of OCD = 17.5.	Quant: 65.3% of OCD patients reported that their symptoms worsened and 31.4% had Y-BOCS scores that increased by more than 25%. Overall, there was a statistically significant increase in their Y-BOCS scores ($p < .001$) in the first month of the pandemic. Qual: Risk of COVID infection reported as a new obsession by 44.8% of participants.	NRS 4/5
26	Benatti et al. (2022), COVID-19, Italy.	N: 116 G: 63M 53F Age: 39.78 E: NR S: NR R: NR	RS: NR ES: NR	RM: Recruited from a tertiary clinic. T1: Nov 2020 - Jan 2021. T2: Jan - March 2021 DCM: Follow up telephone interviews (from Benatti et al., 2020).	Diag: Psychiatric assessment in a tertiary clinic. O: NR	Quant: 37.1% of sample reported symptoms worsening at T2 compared to 35.8 at T1. The p value was not reported but it was not statistically significant. Of those that reported symptoms worsening, 39.5% developed new obsessions and 34.9% developed new compulsions. 60.5% experienced re-occurring of obsessions and 51.2% experienced past compulsions. Qual: N/A	NRS 4/5
27	Chakraborty & Karmakar (2020), COVID-19, India.	N: 84 G: 20M 64F Age: NR E: NR S: NR R: 35 Hindu; 49 Muslim.	RS: NR ES: 50% employed; 50% housewives.	RM: Recruited from a clinic D: T1 = patients last recorded Y-BOCS score pre-pandemic (variable for each participant). T2: 23.04.2020 - 22.05.2020 DCM: Telephone interviews using Y-BOCS and comparison to previous Y-BOCS scores last recorded.	Diag: NR O: Participants had OCD pre-pandemic (only contamination-based OCD).	Quant: Y-BOCS scores: 48.8% = same as before; 39.3% = <5% increase; 6% had a 5-10% increase; 3.6% had 10-25% increase and 2.4% had >25% increase (p value was not reported). Qual: N/A	NRS 4/5
28	Davide et al. (2020), COVID-19, Italy.	N: 30 G: 14M 16F Age: 43.17 E: NR S: NR R: NR	RS: NR ES: 17 working or studying. 13 unemployed.	RM: Recruited from a clinic. D: T1: Jan - Feb 2020. T2: 16/17.04.2020 DCM: Y-BOCS severity score and a questionnaire around life during quarantine.	Diag: Outpatients with OCD diagnosis according to the DSM-5. Semi-structured interview with a psychiatrist. O: NR	Quant: Y-BOCS means before quarantine: obsessions = 8.03; compulsions = 7.93; total = 15.97. During quarantine: obsessions = 10.17; compulsions: 10.27 and total = 20.467. Both severity of obsessions and compulsions increased during quarantine. Changes in the Y-BOCS total scores; obsessional sub-scale and compulsion sub scale were all significant ($p < .001$) Qual: N/A	NRS 5/5
29	Jelinek et al. (2021b), COVID-19, Germany.	N: T1= 268; T2 = 179 G: 73M; 193F; 2GD Age: 39.62 E: NR S: NR R: NR	RS: NR ES: NR	RM: Recruited from OCD clinics and charities. D: T1: 23.04.20 – 18.05.20. T2: August 2020 DCM: Online survey which included the OCI-R and PHQ-9.	Diag: Diagnosis made by a clinician. O: Average illness duration = 17.4 years.	Quant: Overall, obsessive compulsive symptoms and depressive symptoms did not substantially change over time. However, symptoms improved in patients without contamination-based OCD (C-OCD; $p = .003$) but remained stable in patients with C-OCD over time. Qual: N/A	NRS 3/5
30	Khrosrava ni et al. (2021), COVID-19, Iran.	N: 270 G: 115M; 155F Age: 36 E: NR S: NR R: NR	RS: 41.5% single; 51.8% married and 6.7% divorced. ES: NR	RM: NR D: T1 pre-covid - no set date. T2: May-July 2020 DCM: Series of OCD questionnaires: DOCS; Y-BOCS and COVID-19 stress scale.	Diag: Diagnosed by a clinical psychologist using the DSM-5 and SCI for DSM-5 Disorders. O: Average age of onset: 26.6 years; average length of duration: 9.6 years.	Quant: Patients scored significantly higher on all OCD symptoms as measured by the DOCS and Y-BOCS compared to before the pandemic ($p = >.001$). Qual: N/A	NRS 5/5

31	Matsunaga et al. (2020), COVID-19 Japan.	N: 60 G: 25M 35F Age: 41.5 E: NR S: NR R: NR	RS: NR ES: NR	RM: Recruited from a clinic. D: T1: Pre-December 2019. T2: 07.04.2020 - 02.05.2020 DCM: Y-BOCS.	Diag: Met the DSM-5 criteria for diagnosis all classed as either fully remitted pre-pandemic (FR) or partially remitted (PR). O: All had a pre-pandemic onset.	Quant: Pre-pandemic scores: FR = 5.5; PR = 12.2. During the pandemic: FR = 5.7 and PR = 13 (<i>p</i> value was not reported). Only 4 people (1FR and 3PR) experienced new or additional symptoms. 6 people experienced increased severity of symptoms, particularly the times spent performing compulsions item. Qual: N/A	NRS 4/5
32	Moreira-de-Oliveira et al. (2022), COVID-19, Brazil.	N: 30 G: 10M 20F Age: 38.7 E: Asian = 2; 4 = Black; 18 = White; 6 = Other S: NR R: NR	RS: 19 = single; 8 married; 2 = divorced and 1 widowed. ES: 16 = employed; 5 = unemployed; 2 = retired due to disability; 1 = housekeeping; 3 = student; 3 = other.	RM: OCD patients were recruited from the OCD Clinic at the Obsessive Compulsive, and Anxiety Spectrum Research Program Clinic at the Institute of Psychiatry of the Federal University of Rio de Janeiro. D: T1: Jan 2019 - Jan 2020; T2: on average, 13.1 months later. DCM: Series of assessments: Y-BOCS OCI-R, DASS-21.	Diag: Not reported - just says primary diagnosis of OCD. The patients' main compulsive behaviour was washing (26.7%), checking (20.0%), symmetry/ordering (3.3%), and other behaviours (46.7%) O: Mean age of onset of OCD: 15.7.	Quant: No significant changes in OCD symptom severity between the two time points (<i>p</i> = .39), suggesting that the symptoms stabilised. Qual: N/A	NRS 4/5
33	Tandt et al. (2021a), COVID-19, Belgium.	N: 49 G: 15M 34F Age: 34.7 E: NR S: NR R: NR	RS: 16 single; 11 in a relationship (not living together); 4 living together; 16 married; 2 separated. ES: 19 employed; 15 unemployed (health); 4 unemployed; 2 retired; 7 students; 2 others.	RM: Participants were recruited at the Centre for OCD of the Ghent University Hospital (UZ Gent) located in Belgium D: T1: 06.04.20 - 22.05.20. T2: 1 month later. T3: 3 months later. T4: 6 months later. DCM: Telephone interview using the Y-BOCS, DASS-21, CPDI, FAS-IR.	Diag: Diagnosed by psychiatrists or clinical psychologists previously using the SCI for the DSM 4/5. O: NR	Quant: Patients' OCD symptoms increased slightly from T1 to T2 (<i>p</i> value not reported but non-significant) and then improved throughout T3 and T4. According to the Y-BOCS, OCD symptoms improved between T2 and T3 (<i>p</i> = <.05) and again between T2 to T4 (<i>p</i> = <.01). Qual: N/A	NRS 4/5

In Text Abbreviations

BABS = Brown Assessment of Belief Scale (Eisen et al., 1998)
 BEAQ = Brief Experiential Avoidance Questionnaire (Vázquez-Morejón Jiménez et al., 2019)
 CPDI = Covid-19 Peritraumatic Distress Index (Qui et al., 2020)
 COLLATE = COvid-19 and you: mentaL health in AusTralia now survEy (Tan et al., 2020)
 COPE-COPE-28 = Coping Orientation to Problems Experiences Inventory (Morán et al., 2010)
 COTA = Consequences of Terrorist Activity questionnaire (Riemann et al., 2004)
 COVID-19 IM = COVID-19 Impact Measure (*Hassoulas et al., 2022*)
 DASS-21 = Depression, Anxiety and Stress Scale (Henry & Crawford, 2005)
 DOCS = Dimensional Obsessive-Compulsive Scale (Abramowitz et al., 2010)
 DSM-5 = Diagnostic and Statistical Manual of Mental Disorders (APA, 2013)
 FAS-IR = Family Accommodation Scale for Obsessive-Compulsive Disorder (Calvocoressi et al., 1999)
 FQGP = Fear Questionnaire Global Phobia (Marks & Matthews, 1979)
 FQMP = Fear Questionnaire Main Phobia (Marks & Matthews, 1979)
 GD = Gender Diverse
 HADS = Hospital Anxiety and Depression Scale (Zigmond & Snaith, 1983)
 HRA = Hamilton Rating Scale of Anxiety (Hamilton, 1959)
 HRD = Hamilton Rating Scale of Depression (Hamilton, 1967)
 ICD-10 = International Statistical Classification of Diseases and Health Related Problems (ICD-10; World Health Organisation, 2004)
 MM = Mixed Methods Study
 MOC = Maudsley Obsessive Compulsive Inventory (Hodgson & Rachman, 1977; Rachman & Hodgson, 1980).
 NIMH = National Institutes of Mental Health Global Obsessive- Compulsive Scale (Insel et al., 1983)
 NR = Not Reported
 NRS = Non-randomised Study
 OCC = Obsessive Compulsive Checklist (Marks et al., 1977)
 OCI-R = Obsessive Compulsive Inventory Revised (Foa et al., 2002)
 PHQ-9 = Patient Health Questionnaire 9 (Kroenke et al., 2001)
 QDS = Quantitative Descriptive Study
 QS = Qualitative Study
 SCI for DSM-5 = Structured Clinical Interview for DSM-5 Disorders, Research Version (First et al., 2016)
 SHAI = Short Health Anxiety Inventory (Alberts et al., 2013)
 Y-BOCS = The Yale-Brown Obsessive-Compulsive Scale (Goodman et al., 1989)

Impact on OCD Symptoms

As reported by Wheaton et al. (2021), approximately 15% people with OCD experienced an emergence of new symptoms that directly related to the pandemic, and some experienced an exacerbation of OCD symptoms that seemingly had no relation to COVID-19. Interestingly, most studies focused on compulsions that people with OCD experienced and less so on the obsessions. Table 3 presents details of the symptoms participants reported for COVID-19 pandemic.

Table 3

Description of Symptoms

Symptoms Reported	N	Study
Intensifying handwashing.	<i>N</i> = 5	French and Lyne., (2020); Jain et al., (2021); Kumar and Somani (2020); Kumar et al., (2021); Purnama et al. (2021).
Feeling contaminated.	<i>N</i> = 3	Kumar and Somani (2020); Lim et al. (2020); Purnama et al. (2021).
Reluctance to leave the home.	<i>N</i> = 2	French and Lyne (2020); Tiuvina et al. (2021).
Ruminating about health and social distancing.	<i>N</i> = 2	Jain et al. (2021); Tiuvina et al. (2021).
Excessive cleaning.	<i>N</i> = 1	Jain et al. (2021).
Eating canned food for fear of contamination.	<i>N</i> = 1	French and Lyne (2020).
Wearing protective clothing.	<i>N</i> = 1	Tiuvina et al. (2021).

Severity

Four of the case studies documented an emergence of OCD symptoms during the pandemic (Alkhamees, 2021; Jain et al., 2021; Purnama et al., 2021; Tiuvina et al., 2021). Two of the case studies document participants that previously had well controlled or remitted symptoms (French & Lyne, 2020; Kumar et al., 2021). The remaining case studies report an exacerbation of previous symptoms (Jain et al., 2021; Kumar & Somani, 2020; Lim et al., 2020). Therefore, there is a consensus amongst the case studies that the COVID-19 pandemic exacerbated people's OCD symptoms.

All the quantitative cross-sectional studies, apart from Sharma et al. (2021) reported a worsening of OCD symptoms in at least a third of their participants. However, there was a huge range in the percentage of participants that reported a worsening of symptoms. This potentially indicates that not everyone with OCD was equally affected by the pandemics and there could be subgroups of people with OCD who were more likely to be impacted by the pandemic. For example, Benatti et al. (2020) reported that 35.8% of their participants reported a worsening of their OCD symptoms compared to 92.9% of Kaveladze et al. (2021)'s participants. Interestingly, it was found that those with contamination-based OCD (Jelinek et al., 2021a) and those that had OCD for over ten years (Siddiqui et al., 2022) were particularly at risk of being negatively affected by the pandemic. However, it was also found that those that were stabilised on a treatment programme of serotonin reuptake inhibitors did not significantly worsen in their OCD symptoms (Sharma et al., 2021).

Longitudinal Studies (N = 9)

Six of the longitudinal studies compare outcomes from before the COVID-19 pandemic (defined as before 11.03.23; World Health Organisation, 2023) to during the COVID pandemic (Alonso et al., 2021; Chakraborty & Karmakar, 2020; Davide et al., 2020; Matsunaga et al., 2020; Moreira-de-Oliveira et al., 2022). Most of these studies reported, on average, a worsening of OCD symptoms during the pandemic compared to before the pandemic (Alonso et al., 2021; Davide et al., 2020; Khrosravani et al., 2021; Matsunaga et al., 2020). The other three longitudinal studies compared OCD outcome measures at different time points in the pandemic. These three studies all differed in which time points they measured, and all differed in terms of whether they felt people with OCD's symptomology or quality of life worsened, stayed the same or improved. Further details about the longitudinal studies are presented in table 4.

Table 4*Summary of Longitudinal Studies*

Study	Time Points Compared	Results (Overall/ Average)
Pre-pandemic to during pandemic		
Alonso et al. (2021)	T1: At least one-year pre-covid. T2: April - May 2020.	Worsening of symptoms according to the Y-BOCS ($p = <.001$).
Chakraborty & Karmakar, (2020)	T1: Patients last recorded Y-BOCS score pre-pandemic (variable for each participant). T2: 23.04.2020 - 22.05.2020.	48.8% of the sample reported no significant changes and the rest reported a worsening of symptoms.
Davide et al. (2020)	T1: Jan - Feb 2020. T2: 16/17.04.20.	Worsening of symptoms according to the Y-BOCS ($p = <.001$).
Khrosravani et al. (2021)	T1: Pre-covid - no set date. T2: May - July 2020.	Worsening of symptoms as measured by the Y-BOCS and DOCS ($p = <.001$).
Matsunaga et al. (2020)	T1: Pre-December 2019. T2: 07.04.2020 - 02.05.2020.	Worsening of symptoms according to the Y-BOCS (p value was not reported).
Moreira-de-Oliveira et al. (2022)	T1: Jan 2019 - Jan 2020. T2: On average, 13.1 months later.	No significant changes according to the Y-BOCS and OCI-R ($p = .39$).
Different time points during the pandemic		
Benatti et al. (2022)	T1: November 2020 - January 2021. T2: January 2021 - March 2021.	37.1% of the sample worsened in terms of symptoms according to the Y-BOCS (p value not reported but non-significant).
Jelinek et al. (2021b)	T1: 23.03.20-18.05.20. T2: August 2020.	OCD symptoms and depression did not significantly change over time. Those without

		contamination-based OCD improved over time ($p = .003$).
Tandt et al. (2021)	T1: 06.04.20-22.05.20. T2: 1 month later. T3: 3 months later. T4: 6 months later.	Worsening of symptoms between time 1 and time 2 (p value not reported but non-significant). But after time 2, OCD symptoms started to improve. Between T2 and T3, $p = <.05$; between T2 and T4, $p = <.01$.

Discussion

This systematic review examined the impact of the COVID-19 pandemic on individuals with OCD's symptomology using a narrative synthesis. Overall, the studies reported that for people with OCD, their symptoms worsened during the COVID-19 pandemic. The underlying mechanisms for this could be an intolerance of uncertainty during very uncertain times and an increased sense of responsibility of preventing harm, which are discussed below. Moreover, feelings of isolation and stress experienced by the general population are also likely to have exacerbated OCD symptoms, which is also discussed below. This discussion is also going to explore the preliminary findings about possible protective and risk factors for those with OCD during the pandemics.

The COVID-19 pandemic was reported to have had a huge impact on people with OCD's symptoms. The contents of people's obsessions tended to directly relate to the pandemic (e.g. obsessions around the COVID-19 virus and passing it on to loved ones). The cognitive behavioural model of OCD (Salkovskis et al., 1998) hypothesises that OCD develops because of an individual's response to their intrusive thoughts. Individuals with OCD see intrusive thoughts as evidence that something bad will happen to them or their loved ones and that they are morally responsible for preventing this harm. During the pandemic, there were constant messages in the media around the importance of following government guidance to keep your loved ones safe (Kumar & Somani, 2020). Therefore, the pandemic is likely to have increased feelings of moral responsibility and estimation of threat thus exacerbated OCD symptoms (Grant et al., 2022; Jassi et al., 2020; Sookman & Pinard, 2002).

Another possible reason as to why people experienced a worsening of their symptoms and quality of life is due to how uncertain everything was in the pandemic, for example restrictions being put into place or lifted with little warning. Previous research has indicated that

those with OCD tend to struggle with tolerating uncertainty (Pinciotti et al., 2021). The longitudinal studies in this literature review, focusing on later time points in the pandemic, tended to report a stabilisation or even improvement of symptoms (Jelinek et al., 2021b; Tandt et al. 2021). This could perhaps be due to there being less uncertainty as time went on, as the pandemic became less of a novel, unknown phenomenon. Therefore, this literature review provides further support that intolerance of uncertainty could be an underlying mechanism for the worsening of OCD symptoms.

In addition, social isolation and stress have previously been reported to be risk factors for the development or exacerbation of OCD (Grisham et al., 2011). During the pandemic, measures such as lockdowns and restricted movement increased feelings of isolation amongst the general population (Clair et al., 2021), while the uncertainty also increased feelings of stress (Lin et al., 2020). Isolation and stress have also been linked to general poorer mental health outcomes (Brandt et al., 2022) and are likely to explain the general worsening of quality of life as reported in these studies. It is therefore likely that these two factors also contributed to the worsening or development of OCD symptoms as reported in this literature review.

It should be noted that, although in general most participants reported a worsening of symptoms, there were some participants that reported no change or even an improvement (Jelinek et al., 2021b; Sharma et al., 2021). One possible reason is a feeling of OCD symptoms no longer being perceived as pathological (Tandt et al., 2022). In some circumstances the pandemic may have created a “shared understanding” with their loved ones that decreased feelings of isolation (Tandt et al., 2022). This decreased feeling of isolation may have acted as a protective factor for some with OCD. Moreover, Sharma et al. (2021) reported that those who were stabilised on a treatment programme of serotonin reuptake inhibitors were less vulnerable to the negative consequences of the COVID-19 pandemic.

The COVID-19 literature provided some preliminary evidence as to which people with OCD were more vulnerable to the effects of the pandemic, including those with contamination-based OCD (Jelinek et al., 2021a; Jelinek et al., 2021b; Tükel et al., 2022) and those that have had OCD for over ten years (Siddiqui et al., 2022). Interestingly, intolerance of uncertainty has particularly been linked to a worsening of contamination symptoms (Pinciotti et al., 2021). Therefore, this suggests that intolerance of uncertainty may be an underlying mechanism for worsening of OCD symptoms during the pandemic and may have particularly impacted those with contamination-based OCD.

Strengths and Limitations

A strength of this study is that the search strategy and reporting followed the PRISMA guidelines (Rethlefsen et al., 2019). These are the recommended guidelines for a systematic review to ensure methodological thoroughness (Lockwood et al., 2019). In addition, the search strategy was created in consultation with a librarian and utilised a wide variety of sources, including dissertations and theses, thus providing a comprehensive review. Moreover, this review included multiple research designs, including longitudinal, cross-sectional, and case study designs which provided a depth of information.

It is also important to note that due to the complexity of the search strategy, only APA PsycInfo and ProQuest were used for grey literature. Due to EThOS only having a basic search engine, it was not used in this literature review. Although, it should be noted that PsycInfo does index a vast amount of UK psychology or psychiatry theses (EBSCO, 2023), thus we can be confident that if studies had been conducted, they would have been identified.

Moreover, the MMAT (Sirriyeh et al., 2012) was utilised in this study, which is a reliable and validated tool for evaluating the quality of mixed-method studies (Khozaei, 2023). However, it was originally designed for mixed-method studies and therefore it may not be as comprehensive for assessing the quality of studies that are purely quantitative or qualitative (Khozaei, 2023), which a lot of the studies in this review are. Therefore, when considering the results, it is important to bear in mind that the quality assessment may not as been as thorough as possible.

Moreover, a lot of demographic information, particularly ethnicity ($n = 28$), religion ($n = 33$) and sexuality ($n = 33$) were missing from most studies. Without this information, there is a risk of assuming “absolutism” which is where it is assumed the impact of the pandemic is the same regardless of culture, ethnicity, and race (Hammer, 2011). For example, most participants (of those studies that reported the ethnicity of participants) in this literature review were White, meaning that it is difficult to know how applicable the results of this study to people of different ethnicities. This could be due to this literature review only including studies available in the English language and therefore missing out on relevant literature from other countries.

There is also a risk of nonresponse bias; it is possible that those who did not experience a worsening of symptoms would not have volunteered to take part in these studies. Despite these limitations, this literature review identified 33 studies, nearly all of which were high quality, meaning that there is strong evidence for the conclusions drawn from this study.

Future Research

The current review highlights the impact of the COVID-19 pandemic on OCD symptomology. The rate of disease outbreaks has been steadily increasing over recent years, making another pandemic increasingly more likely (Joi, 2022). As illustrated by this literature review, those with OCD are particularly likely to be negatively impacted by pandemics and therefore if any future pandemics take place, people with OCD should be a priority for research. This would help identify risk and protective factors and identify underlying mechanisms for worsening of symptoms to help develop more efficacious treatment for those with OCD. As highlighted in the section above, a future literature review would ideally not have the limit of the literature needing to be in the English language, to capture further research.

This study has provided some preliminary evidence for which people with OCD are at a higher risk of the negative impacts of pandemics, for example those with contamination-based OCD. However, further research is needed to explore this topic further to identify who may require more support during situations where stressors are increased and individuals support strategies are reduced, such as pandemics.

Similarly, there is some preliminary evidence around symptoms stabilising or even improving at later points during the COVID-19 pandemic. However, there was little research into people with OCD's experience of restrictions lifting and a "return to normal" after an outbreak of a pandemic. Future research should focus on the trajectories of symptoms and explore factors around why symptoms might stabilise or how to improve clinical support for those with OCD.

Conclusion

Examining the impact of the COVID-19 pandemic on those with obsessive compulsive disorder (OCD) would provide clinically useful information to help develop a formalised treatment approach for those with OCD. This literature review aimed to synthesise the current literature on the impact of pandemics on people with OCD since 1968. Thirty-three studies were identified and in general, the studies reported that the COVID-19 pandemic caused OCD symptoms to emerge or be exacerbated. Across longitudinal studies examining the COVID-19 impact, severity, as measured by the Y-BOCS (Goodman et al., 1989) and other outcome measures, increased on average. Future research should focus on which people with OCD are particularly vulnerable to events such as pandemics; trajectories of symptoms and the impact of restrictions lifting on those with OCD.

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Service-Related Project***Service Evaluation of IAPT: Exploring the Demographic and Clinical Data of Patients that Only Attended an IAPT Assessment Session.*****Student Name**

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Proposed Journal: Journal of Mental Health & Clinical Psychology

This journal was chosen as it has previously published papers on the dropout rates in IAPT and the current study is within the scope of the journal. Please refer to appendix J for author guidelines.

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Introduction

The IAPT initiative was commissioned in 2008 in England (NHS, 2019) to improve accessibility to evidence-based therapies for people experiencing common mental health difficulties (NHS Digital, 2021). IAPT provides evidence-based treatments for people with depression and/or anxiety disorders and can also cater to people with post-traumatic stress disorder (PTSD). In 2011, the remit of IAPT expanded, now providing treatments for individuals with long-term physical health conditions (Department of Health, 2011). Individuals can either self-refer or be referred by their General Practitioner (GP; NHS, 2018; NHS Digital, 2021). Between the years of 2019 and 2020, a total of 167,6985 referrals were made to IAPT (Quality Watch, 2020), indicating how widely IAPT services are used. People are eligible for IAPT services if it is deemed that one mental health professional can effectively manage their conditions (National Collaborating Centre for Mental Health, 2021). IAPT services also use a stepped care model (Earl, 2010), this refers to how, based on an initial assessment, an evidence-based but least intrusive treatment will be offered first. IAPT is typically split into low intensity therapy which includes computerised cognitive behavioural therapy (CBT), self-help CBT supported by a clinician, or six sessions of CBT with a clinician. IAPT's computerised CBT uses a programme called SilverCloud. High intensity therapy includes more sessions with a clinician and other evidence-based therapies, e.g. eye movement desensitisation and reprocessing (EMDR; Wood et al., 2018). They also offer a choice of group or individual therapy.

Dropout Rates

An important aspect of IAPT is to routinely collect outcome data about symptoms and demographic details for all patients that are referred (NHS, 2019). Symptom outcome measures are also collected at every clinical session. The routine collection of outcome measures has meant that dropout rates for IAPT have been documented. It has been indicated that dropout rates within IAPT can be as high as 43% (Omylinska et al., 2019). Furlong-Silva (2020) reported that the definition of dropping out varies. However, the most common definition of dropout is the patient stopping therapy any time after the initial assessment without prior agreement between the therapist and patient. Moreover, they suggested that there are several patient characteristics, therapist characteristics and environmental factors associated with dropping out. These include patient's health difficulties, deprivation, unemployment, psychological distress, long waiting lists, pathways, and dissatisfaction with the service. It has also been reported that ethnicity and severity of symptoms may also influence dropout rates (Egan & Kenny, 2005; Fernandez et al., 2015). Barret et al. (2008) used Andersen's (1968) model of health services along with research pertaining to barriers to undertaking treatment to understand why people drop out of treatment. They report that there are several factors that influence dropout rates: patient's characteristics,

patient's needs, barriers to treatment, environmental factors and patient's beliefs about mental health and mental health treatment. Moreover, Ghaemian et al. (2020) conducted a qualitative study that aimed to investigate why patients discontinue psychological therapies early within an IAPT service. They reported the following themes: impracticalities of appointments; feeling better and therefore not feeling the need to continue psychological therapy; miscommunication around changes in appointments; issues with group settings, experiencing unsatisfactory treatments and therapeutic alliance breakdown. In addition, there has been several service factors that have been reported to increase drop-out rates such as location of therapy, issues with pathways (e.g., being on the low intensity or high intensity pathway) and dissatisfaction with the service (Furlong-Silva, 2020). However, there is limited research into the patient characteristics of people that drop out of IAPT including their demographic and clinical information. This study will focus on patients that left IAPT after their initial assessment. This is pertinent to the service, as it has been documented that approximately 24% of patients within this IAPT service only have a single datapoint at the time of the data being extracted. It should also be noted that this project took place in the context of the COVID-19 pandemic where most therapeutic sessions took place online or via telephone (England NHS & Improvement NHS, 2020).

Rationale

As an IAPT service is often people's first experience with a mental health service within the NHS (Hamilton et al., 2011), it is vital that patients have a positive experience during the assessment process to have confidence with the mental health services (Hamilton et al., 2011). It is also vital that we understand who is dropping out to ensure that there are no inequalities within the mental health care system.

Aim

This primary aim of this study is to examine the discharge reason of patients who leave therapy after their initial IAPT assessment. This study also aims to compare the clinical, service, and demographic details of those that dropped out compared to those that remained on the waiting list. Overall, this study aims to understand who is leaving IAPT after their initial assessment and, based on the results, suggest any recommendations to improve the assessment process at this IAPT service.

Method

A cross-sectional audit was undertaken using the data analysis of routinely collected data stored on IAPTUS (IAPT's secure database). The data outlined below was extracted from IAPTUS for patients that had attended their IAPT assessment session between 01.11.19 and 01.11.20. The

data was extracted onto an Excel spreadsheet and then anonymised and exported onto an SPSS file. The data was then categorised retrospectively (on the 11.02.21) into two groups: patients that left IAPT after their assessment (assessment only, AO) and patients who remained on the waiting list.

Demographic Information

The following demographic information was analysed: age, ethnicity, gender, and sexuality.

Clinical Information

The following clinical information was compared:

- What diagnosis the patient's symptoms were consistent with, and ICD-10 code (World Health Organisation, 2004). These diagnoses are often made "provisionally" by IAPT therapists based on their assessment; however, it should be noted that these are not standardised diagnoses (Scott, 2018).
- Health of the Nation Outcome Scales (HoNOS) cluster – this is a rating of a person's social functioning and health whilst experiencing mental illness (NHS England and NHS Improvement Joint Pricing Team, 2019).
- Generalised Anxiety Disorder-7 (GAD-7) scores: a self-report measure based on the Generalised Anxiety Disorder criteria (Spitzer et al., 2006). The scores range from 0 - 21, where below 5 is in the healthy range, below 10 is in the mild range, below 15 is in the moderate range and above 15 is in the severe range.
- Patient Health Questionnaire-9 (PHQ-9) scores. A self-reported measure which is based on the DSM-5 criteria of depression and consists of nine questions (Kroenke et al., 2001). The scores range from 0-27. The healthy, mild, and moderate range are the same as the GAD-7, and then a score of 15-20 is moderately severe and above this is the severe range.
- Work and Social Adjustment (WSAS) scores: this assesses functioning in different areas in people's lives (Mundt et al., 2002). Each area is rated from 0-8, where eight means severely affected and zero means not at all affected.
- "Caseness" – whether the patient meets the threshold for therapy based on their PHQ-9, GAD-7 scores, and clinical judgement (NHS Digital, 2017).
- The patient's risk level – this is based on a patient's risk of suicide which is decided (along with clinician's judgement) using question nine on the PHQ-9. Patients are either deemed to be no or minimal risk or assigned a clinician to provide them with follow-up calls.

Service Information

The following information about which service the patients received will be analysed:

- Whether the patient was referred to high intensity therapy or low intensity therapy.
- Whether the patient was referred to the long-term health conditions (LTHC) pathway or the core IAPT pathway (Wiltshire IAPT Service, 2020).

Discharge Reason

For the AO group of patients, the discharge reason is inputted into IAPTUS according to what the clinician believes the reason to be (usually after the phone call to the client). Their discharge reasons were extracted from IAPTUS and then grouped into the following categories according to the main researcher's judgement of the main themes:

- The patient opted for private therapy or therapy through work.
- Sessions are inaccessible for the patient, e.g., the patient cannot read or write, or they have no private space where they live, or they have technology difficulties.
- No reason given.
- The patient no longer has availability for sessions.
- The patient has improved since the assessment and no longer requires therapy.
- The patient feels that CBT or IAPT would not be helpful.
- The patient is physically unwell and cannot attend their sessions.
- The patient was deemed unsuitable for IAPT and were referred to either a different NHS service or charity. This group also includes people who were not in caseness and given self-help.
- The patient changed their mind about the modality of therapy that they wanted. For instance, they decided they wanted group therapy instead of individual therapy and vice versa.
- The patient moved out of area and can no longer access this IAPT service.
- The patient was deterred by the waiting list times.
- The patient was referred to SilverCloud but did not sign up to the service.

Data analytic plan

The data for patients listed above who had only attended an IAPT assessment between 01.11.19 and 01.11.20 were separated into two groups: those that remained on the waiting list and those that were discharged after the assessment (AO). For nominal data (e.g. gender), percentages were calculated within each group. For ordinal, interval, or ratio (e.g. PHQ-9 scores), means were calculated.

Results

Between 01.11.19 and 01.11.20, there were 1,150 patients in the IAPTUS database who had only attended the assessment session. Out of these, 990 people remained on the waiting list and 160 left the IAPT service after the assessment service (AO group).

Table 1 presents the age and gender of the two groups. The AO group had a higher percentage of males and a slightly older average age compared to the waiting list group.

Table 1

Gender and Age of Patients

	Full Group (n=1150)		Remained on Waitlist (n=990)		Assessment Only (AO; n=160)	
	Gender					
	Raw Score	Percentage (%)	Raw Score	Percentage (%)	Raw Score	Percentage (%)
Male	371	32.26	309	31.21	62	38.75
Female	779	67.74	681	68.79	98	61.25
	Age					
Average	40.39		40.17		41.75	

As illustrated in table 2, there were fewer White British people in the AO group and more people who chose to not disclose their ethnicity. There was also a slightly higher percentage of White Irish in the AO group compared to the waiting list group.

Table 2

Ethnicity of Patients

	Full Group (n = 1150)		Remained on Waitlist (n = 990)		Assessment Only (AO; n = 160)	
	Raw Score	Percentage (%)	Raw Score	Percentage (%)	Raw Score	Percentage (%)
Asian/ Asian British	10	0.87	9	0.91	1	0.63
Black/ Black British	7	0.61	7	0.71	0	0.00
Chinese	2	0.17	2	0.20	0	0.00
Mixed (Other)	7	0.61	6	0.61	1	0.63
Mixed (White and Asian)	3	0.26	3	0.30	0	0.00
Mixed (White and Black African)	3	0.26	3	0.30	0	0.00
Mixed (White and Black Caribbean)	3	0.26	2	0.20	1	0.63
Not Disclosed	121	10.52	96	9.70	25	15.63
White British	957	83.22	833	84.14	124	77.5
White Irish	28	2.43	21	2.12	7	4.38
White Other	4	0.35	3	0.30	1	0.63

Table 3 indicates that there were slightly fewer heterosexual people and bisexual people and more people who did not disclose their sexuality in the AO group compared to the waiting list group.

Table 3

Sexuality of Patients

	Full Group (n=1150)		Remained on Waitlist (n=990)		Assessment Only (AO; n=160)	
	Raw Score	Percentage (%)	Raw Score	Percentage (%)	Raw Score	Percentage (%)
Heterosexual	881	76.61	762	76.97	119	74.38
Not Disclosed	216	18.78	180	18.18	36	22.50
Homosexual (Male)	15	1.30	13	1.31	2	1.25
Homosexual (Female)	5	0.43	4	0.40	1	0.63
Bisexual	33	2.87	31	3.13	2	1.25

As illustrated by table 4, there are more people who have symptoms that are consistent with major depressive disorder, generalised anxiety disorder and social phobia in the AO group. However, there are more people with PTSD in the group that remained on the waiting list.

Table 4

The Diagnosis Group that Patient's Symptoms were Consistent with

	Full Group (n=1150)		Remained on Waitlist (n=990)		Assessment Only (AO; n=160)	
	Raw Score	Percentage (%)	Raw Score	Percentage (%)	Raw Score	Percentage (%)
F10 (Mental and behavioural disorders due to the use of alcohol)	2	0.17	0	0	2	1.25
F32 (Major depressive disorder)	405	35.22	343	34.6	62	38.75
F33 (Major depressive disorder, recurrent)	40	3.48	34	2.96	6	3.75
F40.0 (Agoraphobia)	18	1.57	16	1.62	2	1.25
F40.1 (Social phobias)	44	3.83	35	3.54	9	5.625
F40.2 (Specific isolated phobias)	11	0.96	11	1.11	0	0.00
F41.0 (Panic disorder)	26	2.26	22	2.22	4	2.50
F41.1 (Generalised anxiety disorder)	329	28.61	280	28.28	49	30.63
F41.2 (Mixed anxiety and depressive disorder)	6	0.52	5	0.51	1	0.63
F42 (Obsessive compulsive disorder)	38	3.30	37	3.7316	1	0.63
F43.1 (Post traumatic stress disorder)	165	14.35	162	16.36	3	1.88
F43.2 (Adjustment disorders)	7	0.61	6	0.61	1	0.63
F45.2 (Hypochondrial disorders)	18	1.57	14	1.41	4	2.50
F50 (Atypical anorexia nervosa)	1	0.09	1	0.10	0	0.00
F99 (Mental disorder, not otherwise specified)	7	0.61	5	0.51	2	1.25
Z63.0 (Problems in relationship with spouse or partner)	3	0.26	1	0.10	2	1.25
Missing	30	2.61	18	1.82	12	7.50

Table 5 indicates that there were more people who were in cluster 01 or have missing HONOS scores in the AO group compared to the waitlist group. There were more people in clusters 03 and 04 in the group that remained on the waitlist compared to the AO group.

Table 5

HONOS Clusters

	Full Group (n=1150)		Remained on Waitlist (n=990)		Assessment Only (AO; n=160)	
	Raw Score	Percentage (%)	Raw Score	Percentage (%)	Raw Score	Percentage (%)
01	112	9.74	95	9.56	18	11.25
02	543	47.22	467	47.17	76	47.50
03	293	25.48	258	26.06	35	21.88
04	72	6.26	69	6.96	3	1.88
05	1	0.09	1	0.10	0	0.00
06	6	0.52	6	0.61	0	0.00
07	2	0.17	1	0.10	1	0.63
08	2	0.17	1	0.10	1	0.63
09	0	0.00	0	0.00	0	0.00
10	1	0.09	1	0.10	0	0.00
11	3	0.26	1	0.10	1	0.63
12-21	0	0.00	0	0.00	0	0.00
Missing	117	10.17	90	9.09	25	15.63

People that remained on the waitlist group, on average, had more severe scores on all three outcome measures compared to the AO group as illustrated by table 6.

Table 6

Outcome Measures of Patients

	Full Group (n=1150)	Remained on Waitlist (n=990)	Assessment Only (AO; n=160)
PHQ-9 Average Score	15.96	16.17	14.66
GAD-7 Average Score	14.17	14.36	12.60
WSAS Average Score	19.85	20.05	18.63

More people were not in caseness, as reported by table 7, and more people displayed some risk and were assigned to a practitioner in the AO group compared to the waiting list group. It is possible that those who were not in caseness or were elevated risk would be deemed inappropriate for IAPT settings.

Table 7*Patient's Risk Level and Caseness*

	Full Group (n=1150)		Remained on Waitlist (n=990)		Assessment Only (AO; n=160)	
	Raw Score	Percentage (%)	Raw Score	Percentage (%)	Raw Score	Percentage (%)
Caseness (Yes)	1129	98.17	981	99.09	148	92.50
Caseness (No)	21	1.82	9	0.91	12	7.50
Risk Level (Low/ No Risk)	667	58.00	620	62.63	47	29.38
Risk Level (Assigned to a practitioner)	483	42.00	370	37.37	113	70.63

A higher percentage of those on the LTHC pathway remained on the waitlist group compared to the AO group as illustrated by table 8. In the AO group, less people were allocated to high intensity treatments compared to those that remained on the waitlist.

Table 8*Service Information of Patients (What Treatment they were Allocated to)*

	Full Group (n=1150)		Remained on Waitlist (n=990)		Left Service After First Session (n=160)	
	Raw Score	Percentage (%)	Raw Score	Percentage (%)	Raw Score	Percentage (%)
High Intensity	274	23.83	268	27.07	6	3.75
Low Intensity	852	74.09	719	72.63	133	83.13
Intensity Unallocated	24	2.09	3	0.30	21	13.13
Core Pathway	959	83.39	819	82.73	140	87.50
LTHC Pathway	151	13.13	171	17.27	20	12.50

Table 9 reports that the most common discharge reasons were: the patient not signing up to SilverCloud, no reason given, the patient has improved since their initial assessment (and no longer needs therapy) and the patient opted for private treatment or treatment through work instead.

Table 9

Discharge Reason for Patients that Left the IAPT Service after their Initial Assessment

	Raw Score	Percentage (%)
Private treatment/treatment through work	21	13.13
Inaccessible for patient	4	2.50
No reason given	31	19.38
Patient does not have availability	4	2.50
Patient has improved since initial assessment	21	13.13
Patient feels that IAPT/ CBT would not be helpful	4	2.50
Patient ill health	24	1.88
Patient is not suitable for IAPT	26	16.25
Patient changed their mind about modality of therapy	1	0.63
Patient has moved out of area	4	2.50
Patient has been deterred by waiting list times	2	1.25
Patient did not sign up to SilverCloud	39	24.38

Discussion

This study aimed to compare the demographic, clinical and service characteristics of patients that only attended the assessment session at IAPT (assessment only, AO) compared to those that remained on the waiting list. The sections below summarises and offer possible explanations for the demographic, clinical, service information and discharge reason of the patients between the two groups. The AO group had: a higher proportion of men; people who had symptoms consistent with major depressive disorder, generalised anxiety disorder and social phobia; people who displayed risk of suicide; people referred to low intensity therapy; and more people who did not disclose their ethnicity and sexuality compared to the group of people that remained on the waiting list. This group also had less severe PHQ-9, GAD-7 and WSAS scores and less people on the LTHC pathway compared to the group of people that remained on the waiting list. With regards to the discharge reason, the most common reasons were the patient not being suitable for therapy; not signing up to their SilverCloud account; no reason given; patient reporting that they have improved and no longer need therapy; and the patient choosing to get therapy through work or privately.

Demographic Details

Overall, there were more males in the AO group; 38.75% compared to 31.21% in the waiting list group. 15.63 % of people did not disclose their ethnicity in the AO group compared to 9.70% in the waiting list group. 22.50% did not disclose their sexuality in the AO group compared to 18.18% in the waiting list group. However, the average age was similar between the two groups.

Previous studies have reported that gender does not significantly affect dropout rates in IAPT (Binnie & Boden, 2015; Di-Bona et al., 2014; Furlong-Silva, 2020). However, it is also important to note that although there was a higher percentage of men in the AO group, this was by just over 7% and it is possible that this may not be statistically significant. In addition, Rochlen et al. (2010) conducted qualitative research into barriers to treatment for men with depression. They reported the following themes as treatment barriers for men: perceived incompetence of therapists and preference to solve issues on their own. However, without qualitative information, it is difficult to know why there may have been more men in the AO group compared to the group that remained on the waiting list. There appears to be limited research into the effect of people choosing to not disclose their ethnicity and sexuality and the impact this has on dropout rates in therapy. This is a topic that would benefit from future research.

Clinical Information

There were more people with symptoms consistent with: major depressive disorder (38.75% compared to 34.60%), generalised anxiety disorder (30.63% compared to 28.28%) and social phobia (5.63% compared to 3.54%), but fewer people with symptoms consistent with PTSD in the AO group compared to the waiting list group. There is currently limited research into dropout rates in IAPT around diagnosis of patients and therefore future research may benefit from qualitative research into reasons for this pattern indicated.

The AO group had less severe scores for the PHQ-9 (14.66 compared to 16.17), GAD-7 (12.60 compared to 14.36) and the WSAS (18.63 compared to 20.05) and were less likely to be in caseness (92.50 compared to 99.09). The AO group also had a higher percentage of people in cluster one or had their HONOS scores missing, whereas the waiting list group had more people in clusters three and four. These results may be explained by IAPT's inclusion and exclusion criteria. For instance, a client needs to score above 10 in the PHQ-9 and above 8 in the GAD-7 to be considered a clinical case (National Collaborating Centre for Mental for Mental Health, 2018). Therefore, perhaps the people who did not meet this criterion were in the AO group due to being excluded from the service.

More people displayed some risk and were assigned to a practitioner in the AO group. IAPT have the policy of not taking on people who had made a suicide attempt in the last thirty days, pose a greater risk to themselves, or come under the care of secondary care mental health services (Surrey and Borders Partnership, 2016). This could potentially explain why people in the AO group are more likely to be higher risk.

Service Factors

In addition, more people who were in the AO group were referred to low intensity therapy. This contrasts with previous literature that indicated that there is no difference in dropout rates between high intensity and low intensity treatments (Chan & Adams, 2014). However, Cairns (2013) conducted research on patients that have referred themselves multiples times to IAPT and reported that personalised individual treatment is the most effective way to engage people. Some low intensity therapy includes group work or computerised CBT which may not meet this criterion and therefore means that it is less likely to engage people. In addition, many people who are referred to higher intensity therapy have previously received therapy through IAPT before (Mental Health Matters, 2021). For instance, some patients received lower intensity therapy and then get re-assessed and referred for further high intensity therapy. It is possible that the people who choose to re-refer for further therapy have already had a positive experience of IAPT and are therefore more likely to remain on the waiting list. However, further qualitative research would be needed to explore this.

There was also a lower percentage of people on the long-term health conditions (LTHC) pathway (12.5% compared to 17.27%) in the AO group. This contrasts with previous research that has indicated that having a long-term health condition could be a risk factor for disengaging from therapy (Verbist et al., 2023). However, like the results around those who have symptoms consistent with PTSD, this could be due to heterogeneity for the definition of drop out. Interestingly, Verbist et al. (2023) did report that clients with a long-term health condition are less likely to drop out in during the lockdowns in COVID-19 (opposed to before and after). This could potentially be due to the use of technology making therapy more accessible to those that have mobility issues (Barnett et al., 2021). The period of which this study took place did cover COVID-19 lockdowns and therefore this might also explain the results.

Discharge Reason

With regards to the discharge reason, the most common reasons were not signing up to their SilverCloud account (24.38%); no reason given (19.38%); patient reporting that they have improved and no longer need therapy (13.13%); and the patient chose to get therapy through work or privately (13.13%).

Marshall et al. (2015) did a qualitative study that explored people's reasons for dropping out. This study identified the following themes that participants reported: waiting list times; expectation of the treatment; relationship between GPs and IAPT; relationship to therapist; and rigidity of service. The current study also highlighted the effect of waiting list times. Two patients reported that the waiting list time was the discharge reason, and the waiting list time may have also had an indirect impact on the groups that received therapy through a different route (private or work) or those that improved. The largest group in this study was not signing up to SilverCloud. Marshall et al. (2015) report that some patients drop out of IAPT due to feeling that the therapy was not what they expected, and they were hoping for a more personalised approach. It is possible that some patients may feel that SilverCloud would not be the personalised approach they are looking for, however future qualitative research would be needed to explore this idea.

The reason "patient has improved since their initial assessment" by 13.13% of patients in the AO group is supported by Ghaemian et al.'s (2020) theme of "Felt Better". Moreover, their theme of "impracticalities" is supported by reasons reported in this study such as "inaccessible for patient" (2.5%) or "patient does not have availability" (2.5%) and "patient has been deterred by waiting list times" (1.25%). Other themes reported by Ghaemian et al. (2020) such as therapeutic alliance breakdown and unsatisfactory services are less likely to be reported in this study as patients did not actually start therapy and this more focuses on patient's dropping out after their assessment. Moreover, a substantial number of patients (19.38%) did not report their reason for leaving after their assessment and it is possible that their reason for leaving is within one of Ghaemian et al.'s (2020) themes.

Clinical Implications / Recommendations to the Service

The following recommendations were derived in consultation with a person with personal experience of IAPT. The full minutes of the meeting are documented in appendix I. The first recommendation that was suggested is that patients should be monitored whilst on the waiting list, in particular their risk level should be reviewed. It may be beneficial to provide patients with reassurance that they are still on the waiting list, and to provide an opportunity for motivational interviewing (a collaborative conversation that aims to support patients resolve ambivalence; Rollnick & Miller, 1995). Moreover, monitoring of patients whilst on the waiting list may help determine if patient's needs have changed and whether they require a different intensity of therapy or a different service. Practical information around the support they will receive should also be clearly communicated back to the client at the point of assessment, e.g., the number of sessions and the modality of these sessions.

Moreover, for some people IAPT was inaccessible to them. For instance, one person had difficulty reading and writing. 16.4% of adults in England have poor literacy skills (National Literacy Trust, 2012) and 5% of the population struggle to speak and understand English according to the 2011 census (Stokes, 2013). Therefore, it is important that IAPT is accessible to those that struggle with reading and writing. The outcome measures may be inaccessible to these people and there are ways that the outcome measures could be removed or adapted for these patients. Moreover, in the context of the COVID-19 pandemic, some people did not have access to an internet connection or a stable phone connection or private space in their home. For these patients, the restrictions should be more flexible. Therefore, patients should be given different options around how their assessment is conducted, e.g., via phone, online or face-to-face. Even in the context of the COVID-19 pandemic, face-to-face assessments may be a necessity for some people. Similarly, people may need further support around signing up to SilverCloud and require a trial login/technical support.

Additionally, the following information needs to be clearly communicated back to the patient and their GP (if not currently done so) for people to get the support that they need: the diagnoses they were given, what their risk level is deemed to be and whether they are eligible for the service. It would also be useful if the GP is aware of waiting list times and what type of therapy they had been referred to. This is for the GP to manage the risk of the patient and find alternative services if the person does not meet IAPT's eligibility criteria.

It was also noted that many people chose not to disclose demographic details such as their sexuality and ethnicity. The demographic forms that are used by IAPT may require reviewing to ensure demographic groups are specific and sensitive enough to enable people to feel represented and comfortable when completing the form. For example, having enough gender, sexuality, and ethnicity choices on the demographic form.

Strengths and Limitations

A strength of this study was the large sample size (1,150 people) meaning that the findings are more likely to be valid. Moreover, as this data is routinely collected from everyone that enters IAPT there is little missing data. This is key to the validity of the findings, as missing data can result in reduced statistical power and representativeness (Kang, 2013).

A considerable proportion of people did not disclose their ethnicity (10.52%) and sexuality (18.78%). It is therefore difficult to draw conclusions regarding any potential differences between the two groups based on these factors. Moreover, a sizeable proportion of people (19.38%) did not provide a discharge reason in the AO group. If this information had been

available, it may have shed light on a further variety of reasons why people left after the assessment or a potentially reoccurring theme that could be addressed at a service level.

Future Research

Like the clinical implications section, the future research section was also done in consultation with a person with personal experience of IAPT.

Future research that would be beneficial to exploring why people may leave IAPT after their initial assessment would include qualitative research around people's reasons for leaving the service and their ideas to improve their experience. There is a large group of people who did not report their discharge reason; this suggests that further follow up is required. Moreover, many people's discharge reason was described as "patient has improved." However, this needs to be clearly defined and more information is needed as to whether the patient found support elsewhere (whether professional or personal). It is possible that people may not feel that they have improved but no longer want to wait on the waiting list. As twenty-four people left IAPT after assessment due to ill health, this should be investigated further. Similarly, patient ill health should be defined further and adaptations to IAPT for physically unwell people should be investigated.

In addition, some people were not eligible for the service. Therefore, it would be beneficial for future research to focus on GPs' knowledge of IAPT and their eligibility criteria, for example training or networking with GPs, to ensure they are appropriately referring, and they are aware of alternative services. In addition, it would be helpful to investigate whether people are referred on by IAPT to different services or if patients are signposted to different services and how efficient this process is. It may also be beneficial to compare the differences between those who self-referred to IAPT and those that were referred by the GP in terms of who left the service after assessment. This may indicate GPs' knowledge of IAPT services and whether people who self-refer are more motivated to stay on the waiting list.

The discharge reason group with the largest number of people was not signing up to SilverCloud, therefore there needs to be research into barriers around computerised CBT. It is possible that many people are unable to access computerised CBT for assorted reasons, including lack of technological knowledge or lack of access to a computer or Wi-Fi. There may also be demographic groups that struggle to access computerised CBT, and this would benefit from investigating.

Conclusion

This study aimed to examine the discharge reason of those that left IAPT after their initial appointment (AO group) and to compare their demographic, clinical and service details to those that remained on the waiting list. The most common discharge reasons were patients not signing up to computerised CBT; no reason given; the patient getting therapy elsewhere; patient is not suitable for IAPT; and patient has improved since their initial appointment. The AO group also had: a higher proportion of people who had symptoms consistent with major depressive disorder, generalised anxiety disorder and social phobia; more people referred to low intensity therapy; more people who displayed risk of suicide; men; and more people who did not disclose their ethnicity and sexuality. This group also had less severe WSAS, PHQ-9 and GAD-7 and fewer people on the LTHC pathway. Clinical implications include continuing patient monitoring whilst on the waitlist; patients to receive clear practical information about the support they receive; making demographic forms/questions more sensitive; and making IAPT more accessible to those with difficulty reading English. Future research recommendations include qualitative research into why people leave IAPT after their assessment and GPs' knowledge of IAPT services and accessibility of computerised CBT.

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Main Research Project

“The Pandemic Came as an Ambush!” Triggers for Symptom Worsening and Protective Factors for Those Experiencing Sub-Clinical Obsessive Compulsive Disorder During the COVID-19 pandemic.

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Proposed Journal: Social Science & Medicine

This journal was chosen due to its' high impact factor (IF = 5.379). This journal also encourages papers which appeal to an international audience and this study has an international sample. The current paper is also within the scope of this journal and this journal aims to inform current policy and practice. Please refer to appendix M for author guidelines.

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Introduction

In March 2020, the World Health Organisation classified the coronavirus outbreak as a pandemic (Silva et al., 2020). As a result, government health campaigns focused on the importance of preventing the spread of contamination. Sanitary precautions such as the use of anti-bacterial gel and frequent handwashing became normalised (Rivera & Carballea, 2020). Updates about the spread of the virus appeared in the media on a 24/7 news cycle (Kumar & Somani, 2020). The serious threat that the pandemic presented was solidified by prolonged national lockdowns, social distancing restrictions and quarantines. These measures, which were aimed at keeping people safe, resulted for many in social isolation and loneliness, and a range of other negative impacts on people's mental health (Ahorsu et al., 2020; Khan et al., 2020; Sakib et al., 2020). It has been reported that the pandemic had particularly adversely impacted those with obsessive compulsive disorder (OCD; Benatti et al., 2020; Davide et al. 2020; Jelinek et al., 2021; Khosravani et al., 2021; Tandt et al., 2022). OCD is one of the most disabling conditions as measured by negatively impacting quality of life (Veale & Roberts, 2014). OCD is characterised by the presence of obsessions (recurrent unpleasant intrusive thoughts) and compulsions (behaviours that the individual feels compelled to do in response to their obsessions; American Psychiatric Association, 2013).

According to the cognitive behavioural theory of OCD, all humans experience intrusive thoughts. OCD develops when an individual interprets their intrusive thoughts to mean that there could be a serious risk of harm to others or themselves (Rachman, 1993; Salkovskis, 1985; Salvovskis, 1989). Central to this theory is the idea of 'inflated responsibility', meaning that the individual feels a sense of personal responsibility for preventing harm from occurring. In attempts to reduce the perceived risk of harm, and gain a sense of certainty, the individual carries out compulsions (Salkovskis, 1989). Approximately 46% of people with OCD have contamination concerns where the individual's obsessions focus on germs and spreading illnesses (Jalal et al., 2022). The uncertainty the pandemic presented and the potential for harm could potentially exacerbate one's perceived responsibility for preventing harm (Banerjee, 2020). Cognitive behavioural therapy (CBT) aims to help individuals with OCD to choose to challenge their interpretations and to discover that what they feared did not occur, even when they did not perform their compulsions (Whittal & McLean, 1999). However, the pandemic posed a real risk of contamination with potentially life-threatening consequences, particularly for those in the clinically vulnerable category (NHS, 2021).

Multiple studies have highlighted the negative impact of the pandemic on those with OCD (Benatti et al., 2020; Davide et al. 2020; Jelinek et al., 2021; Khosravani et al., 2021; Tandt et al., 2022; Wheaton et al., 2021). Wheaton et al. (2021) conducted an online survey on those that had

self-identified OCD and reported that most indicated a worsening of their OCD symptoms, particularly contamination and responsibility for harm symptoms. Similarly, Jelinek et al. (2021) also conducted an online study on 394 people with OCD and reported that 73% of participants reported an increase in OCD symptomology. Moreover, Davide et al. (2020) examined Yale-Brown Obsessive Compulsive Scale (Y-BOCS: Goodman et al., 1989) scores of those with OCD before and after a six-week quarantine. It was reported that both obsessions and compulsions increased in severity. Finally, Khosravani et al. (2021) conducted a study which examined symptom severity and different symptom dimensions and reported that during the pandemic, those with OCD increased in symptom severity across all symptom dimensions, including contamination, responsibility for harm amongst others and unacceptable thoughts. However, most of these studies focused on people that had received treatment for their OCD and did not include people who had untreated OCD who may be particularly vulnerable to the impact caused by the pandemic (Khosravani et al., 2021). Moreover, qualitative studies are needed to explore and understand the potential reasons for OCD symptoms worsening.

To date, only a handful of qualitative studies have explored the impact of the pandemic on those with OCD. Tandt et al. (2022) conducted a qualitative study on 22 patients and 13 family members, examining the impact of the pandemic and lockdowns on people with OCD. It was reported that OCD-driven behaviours increased, even amongst those that had previously undergone therapy. In addition, the uncertainty caused by the pandemic increased feelings of anxiety, hopelessness, and depression. Similarly, Benatti et al. (2020) conducted a qualitative study that reported that participants were experiencing new symptoms that they had not previously experienced as well as increased: sleep difficulties, avoidance behaviours; work difficulties, internet checking and suicidal ideation.

Yet to be qualitatively investigated are the potential triggers for OCD symptom worsening during the pandemic and protective factors that helped those with OCD during the pandemic. Such information has the potential to be clinically useful for formalising treatment for those with OCD. Findings may be particularly useful for informing what support is required for those with OCD particularly in the context of difficult or traumatic events. Therefore, the current study aims to explore the following two research questions:

1. What were the triggers for OCD symptoms worsening during the COVID-19 pandemic?
2. What did people with OCD feel were protective factors during the COVID-19 pandemic?

Method

Participants

A total of $N = 19$ participants, who self-identified as having OCD took part in this study. Participants were recruited via social media (Twitter, Facebook, and Instagram). Study adverts were also placed on the OCD Action website (OCD Action, 2022); and the study was shared through the University of Bath People with Personal Experience Committee. The sampling method was purposive and included the use of snowballing by sending a copy of the recruitment posters to participants to pass on to those that they know who also have OCD. A screening self-report measure based on the DSM-5 diagnostic criteria was used to confirm eligibility for the study. It should be noted that due to a clinician-based interview not being used to confirm participant's self-reported OCD diagnosis, the sample can be best described as sub-clinical.

Measures

To contextualise the sample, participants completed the measures outlined in table 1. Co-morbid illnesses are common with OCD populations. This is illustrated by Sharma et al. (2021) who conducted a systematic review and reported a pooled prevalence of 70.8% of co-morbid illnesses within OCD adult populations. Therefore, it was important to contextualise the sample by assessing for common co-morbid illnesses.

Qualitative Interviews

A semi-structured interview schedule was developed by the researchers (a trainee clinical psychologist and a qualified clinical psychologist). To create the context for the interview, participants were initially asked to describe their general experience of the COVID-19 pandemic (Reinharz, 1993). This was followed by more specific questions about the impact of the pandemic on their OCD symptoms, prompts were included triggers for change in symptoms, current living situation and experience of any support that they received.

The interview schedule was then piloted with a person with lived experience of OCD who made amendments to the wording and suggested additional questions. The full interview schedule is provided in appendix K.

Procedure

Ethical approval was granted by the University of Bath Psychology Research Ethics Committee (21-218).

Recruitment advertisements directed potential participants to a secure online questionnaire portal, hosted on the Qualtrics platform (Qualtrics, 2020). Participants were asked

to read a study information sheet and then, if they wished to take part in the study, to complete an online consent form. Participants then proceeded to screening questions which confirmed that they had OCD (if they clicked no, the questionnaire automatically ended). If they confirmed that they had OCD, participants were asked to provide demographic information and complete the standardised measures as listed in table 1. On completion, participants were invited to leave their email address if they wished to take part in an interview. Participants were then presented with the study debrief information and could choose to listen to an optional relaxation exercise to transition back into their day.

The researcher contacted participants via email to arrange a time for the interview. Interviews were conducted via Microsoft Teams. On completion of the interview, participants were invited to provide any additional information that they wished to add; to ask questions and were debriefed. An optional relaxation exercise was provided at the end of the interview to aid their transition from the study back into their day. Participants received a PayPal payment of £15 for their participation. Payment of participants was funded through the University of Bath Doctorate of Clinical Psychology programme.

Data Analysis

Reflexive thematic analysis (RTA; Braun & Clarke, 2019) was chosen to analyse the data as it is suitable for analysing a group's experience of a particular circumstance (Braun & Clarke, 2021). In addition, its theoretical flexibility, provides opportunities for both interpretive and descriptive analysis.

A critical realist ontological and epistemological stance was adopted, meaning that the participant's reported experience of living through the COVID-19 pandemic with OCD and unpacking the meaning this had for them was prioritised. The researchers were cognisant of wider contextual factors such as their country's government, policies, and economic status, their own life experiences, values, and assumptions and how these may impact data collection and analysis.

In addition, developing codes and themes can be done deductively (using existing concepts from previous research) or inductively (driven by the content of the data). However, it should be noted that inductive and deductive approaches are not mutually exclusive binary choices (Braun & Clarke, 2019). Thus, in this study, the research questions and interview schedules were guided by previous research that indicated that people with OCD struggled and their symptoms worsened during the COVID-19 pandemic. In addition, questions which asked about participant's experience of lockdowns lifting and the impact of living with clinically vulnerable family members were guided by previous research around intolerance of uncertainty

and threat of contamination. However, a more inductive stance was used to analyse the data as the aim was to capture the ideas produced by the participants.

The first author kept a reflective journal and used supervision over the course of the research to reflect on the processes at hand and the analysis of the data. The reflexive journal allowed the first author to reflect on her own life experiences, research practice and social positionings and how this interacted with the data and consequent analysis. For instance, due to both professional and personal experience, the author was drawn to accounts around the importance of peer and community support.

All interviews were recorded and the transcription function on Microsoft Teams was used to transcribe the interviews. The first author checked the accuracy of the automated transcription against the recording. This was done by listening to the recording of the interview and served to also familiarise the researcher with the data. Following this the transcripts were anonymised, and the interview recordings were securely deleted. The six phases of RTA (Braun & Clarke, 2019) were followed in the analysis of the dataset. Table 2 details how the six phases were applied.

Table 2

Application of RTA

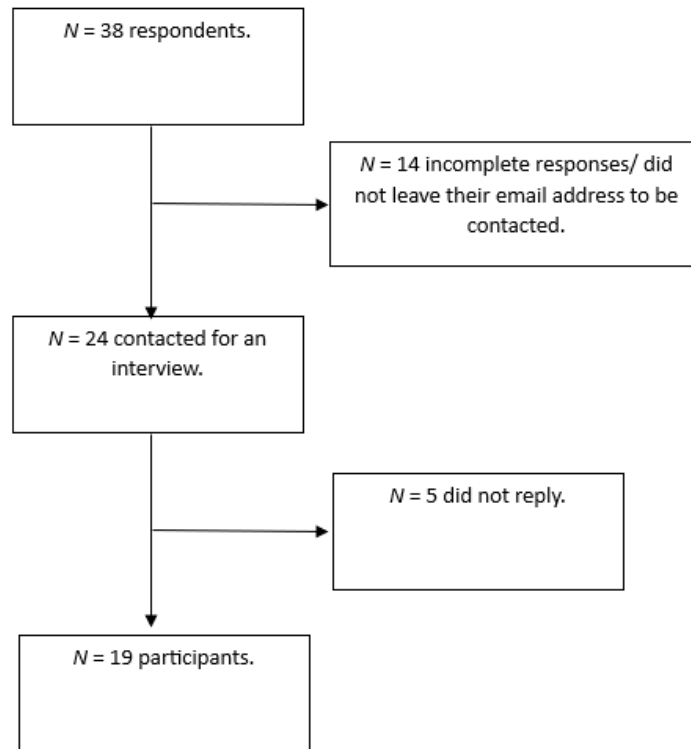
Analytic Phase	Brief Description	Application of Process
Familiarisation	The researcher immerses themselves in the data to familiarise themselves with the dataset.	The researcher checked and edited the automatic transcription of the interviews; listened to the recording of the interviews and read through each interview twice and made brief notes in a separate document around any themes/ ideas noticed and any reflections.
Coding	Creating labels for parts of the data that answer the research question.	Codes were initially created semantically in Microsoft Word for each interview. The author then reviewed the codes and reflected on her life experience in the process of developing latent codes.
Generating Candidate Themes	Creating initial groups/ themes from the codes.	Codes were then grouped into initial themes using a thematic map.

Developing and Reviewing Themes	Themes are checked that they reflect the dataset.	Supervision was sought around the initial themes and suggestions were made on how to further develop the themes. A table was created with the reviewed themes, which included a brief description and example codes/ quotes from the dataset to ensure the themes were grounded in the data.
Refining, Defining, and Naming themes	Themes are refined; potentially combined; split or discarded. The focus/ description of the theme is also defined.	Further supervision was sought to discuss the themes and how they could be combined or refined. This led to a final draft of the themes.
Writing up	A narrative is created from the themes.	The themes were created into a narrative and themes were further refined during this process.

Results

Figure 3,

Participant's Pathway



As illustrated by figure 3, 38 people originally responded to the online advertisement, however after incomplete questionnaire responses and not replying to interview invitations, only 19 participants took part in total. The sample consisted of nine women, eight men and two non-binary people and the average age was 25.47 years old. Ten participants were Black/ Black British, five White British, three were of mixed ethnicity (White and Black African) and one person was Asian/ Asian British. Additional demographic characteristics of are presented in table 4. Although, it was not formally included in the demographic's questionnaire, the participants were an international sample. Through information given during the interviews and automatic information produced by Qualtrics, it was noted that the countries that the participants lived in included the UK, USA, and Nigeria.

Table 4*Participant Demographics*

Demographics		N	%
<u>Age</u>	Range: 18-30, M = 25.47 S.D. = 3.61		
<u>Gender</u>	Female	9	47.37
	Male	8	42.11
	Non-Binary	2	10.53
<u>Ethnicity</u>	Asian/Asian British	1	5.26
	Black/Black British	10	52.63
	Mixed (White & Black African)	3	15.79
	White British	5	26.32
<u>Relationship Status</u>	Single	4	21.05
	Cohabiting	3	15.79
	In a relationship	3	15.79
	Married/ Civil Partnership	9	47.37
<u>Current Living Arrangements</u>	Living Alone	1	5.26
	Living with Spouse/ Partner	14	73.68
	Living with Parents	3	15.79
	Other	1	5.26
<u>Current Employment Status</u>	Unemployed	1	5.26
	Self-employed	1	5.26
	Employed (part-time)	3	15.79
	Employed (full-time)	11	57.89
	Student	3	15.79
<u>Highest Level of Education Completed</u>	A-Levels or Equivalent	3	15.79
	Higher Education	1	5.26
	Undergraduate Degree	4	21.05
	Postgraduate	11	57.89

Participant's symptoms of generalised anxiety (as measured by the GAD-7; Spitzer et al., 2006) and depression (as measured by the PHQ-9 ; Kroenke et al., 2001) ranged from healthy to severe. On average, participants scored in the mild range for both symptoms of anxiety and

depression. However, it should be noted that there was a huge range in scores, with none scoring in the severe range, three participants scoring in the moderately severe range on the PHQ-9, two in the moderate range and the rest of the participants in the none to mid-range of depression. For the GAD-7, three scored in the severe range, four in the moderate range and the rest in the none-mild range. Three participants did score below the clinical cut off on the OCD symptom severity measure (i.e., < 21 on the OCI-R; Foa et al., 2002). However, it is important to note that most participants reported that their OCD symptoms had improved since the lockdowns had ceased. Therefore, although these participants ($n = 3$) may not have met the cut off according to the OCI-R at the time of the study, they did say in their interview that their OCD symptoms were worse during the pandemic. The highest scoring OCI-R subscales for this sample were the “Obsessing” subscale and “Checking” subscale. The lowest scoring subscale was “Hoarding”. For the three-item loneliness scale (Hughes et al., 2004), the mean was 5.58, suggesting a mid-range level of loneliness amongst the participants. However, again, there was a huge range in responses.

Table 5

Participant Scores on the GAD-7, PHQ-9, OCI-R and UCLA Loneliness Scale

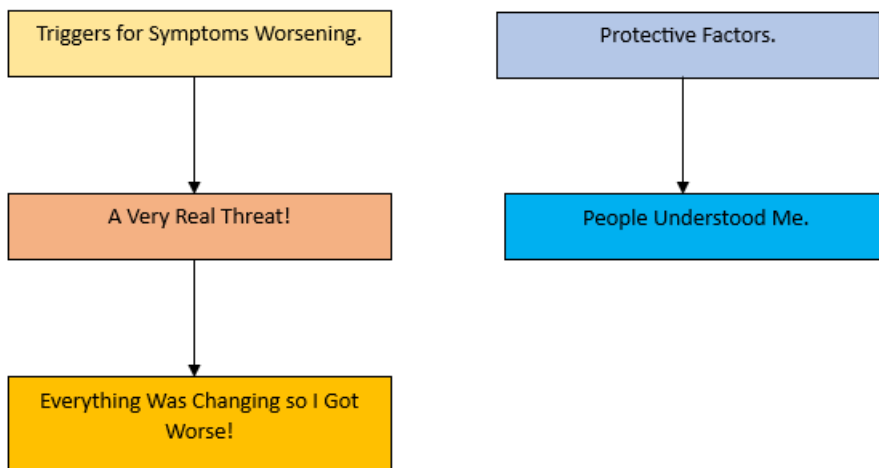
Measures	Range	Mean	S.D.
GAD-7	0-18	7.63	6.02
PHQ-9	0-18	5.84	6.23
OCI-R Total Score	10-64	32.68	3.33
OCI-R OCD Subscales Score	6-54	28.05	3.42
OCI-R Hoarding Subscale Score	0-11	4.63	2.75
OCI-R Washing Subscale Score	0-12	5.00	3.82
OCI-R Obsessing Subscale Score	0-12	6.00	3.23
OCI-R Ordering Subscale Score	0-12	5.47	3.52
OCI-R Checking Subscale Score	3-12	6.32	3.13
OCI-R Neutralising Subscale Score	0-12	5.26	2.75
UCLA Loneliness Scale	3-9	5.58	2.01

Participant names are pseudonyms. The analysis identified three themes which are depicted in a thematic map (Figure 6). The arrows represent a connection or influence between themes. First, with regards to triggers for people with OCD’s symptoms worsening, the pandemic being “A Very Real Threat!” (Theme 1) meant that everything was very uncertain and that triggered participant’s symptoms to worsen (Theme 2: “Everything was Changing so I Got

Worse!”). Next, with regards to protective factors participants mostly spoke about feeling more understood (Theme 3: “People Understood Me”) during the pandemic whether that was through those around them or seeking out peer support.

Figure 6

Thematic Map of Triggers and Protective Factors for those Experiencing OCD during the COVID-19 Pandemic



1. A Very Real Threat!

This theme captures the increased sense of responsibility that participants described, for ensuring their loved ones were kept safe during the pandemic. Prior to the pandemic, there was a level of doubt regarding risk associated with contamination fears. However, the pandemic presented a level of certainty and confirmation that there was a real threat and precautions were necessary. The combination of government enforced restrictions resulting in the separation of people from their support system, in combination with the available 24/7 news coverage, provided further confirmation of the risk. The pandemic colluded with their OCD and for some this was taken as evidence that OCD had been ‘right all along’.

It actually was [added pressure] because we all felt like ... this person [clinically vulnerable family member] is so close to us. And if care is not taken, we might actually get the virus. So, we have to take extra care. (Phillipa)

The news was kind of panicking to me because whenever they announce this case in a certain place whereby, I know my family members in that place and the virus is there... I was just so worried for my family members... the more you watch the news, you realize

that it's kind of spreading towards you and... I just was afraid not to move around.

(Joshua)

I can proudly say that uh fortunately nobody got... the coronavirus...And actually my controlling the house ... and trying to be as clean as possible...You can say that actually, that helped me and my family to...not to get the virus. (Matthew)

Further to this, the pandemic was reported to be too serious and too dangerous of a situation to challenge their OCD and to continue any previous exposure work.

Before COVID hit, I was challenging them [OCD symptoms] and allowing my [family member] to clean things and trusting that he's cleaned it properly but when the pandemic happened, I would have to be the one to clean ... If I did do OCD work and I was challenging, you know, my fear of the germs and the contamination, and then I contracted COVID and then what would happen then? Do you know what I mean? I guess, [it was too] serious of an issue [to] get the help at that time. (Zara)

The confirmation of threat was an element that contributed to the perfect storm, exacerbating OCD symptoms. This further led to an exacerbation of safety seeking behaviours, as explored in theme 2.

2. Everything Was Changing, so I Got Worse!

As may be expected, the constant threat of spread of contamination, led to a worsening of symptoms for those with contamination fears.

My OCD surrounded contamination ...I was afraid of making everyone ill if I accidentally caught it... I noticed that I was like washing my hands a lot more and like cleaning whenever, like there's a sign someone could be ill in my house. I stayed completely away from them...I got my Dettol spray out and I was cleaning everything repeatedly. (Xanthe)

I just constantly felt I had it, even though I hadn't gone out of the house. I just felt I had it and I had to go get tested to make sure I didn't so that I didn't harm anyone else...it [getting tested] would reassure me until I got the next symptom. (Zara)

However, it was not just contamination-based symptoms that became more severe. For many people with OCD, compulsions such as skin picking or needing to check in on people became more prominent in the pandemic. Due to the uncertainty and there being a very real threat, their compulsions felt like the only thing that they had control over and the only thing that helped them regulate their anxiety.

I think it was just with everything else going around. It [skin-picking] was the one thing that I could use to like to regulate, so I think. I clung to that as maybe a distraction, I don't know. (Irene)

For me, it's very much sort of being in control thing and you weren't very in control because there was a pandemic, and everything was changing and so I got worse. (Ashley)

For some, they received a diagnosis of OCD for the first time during the pandemic due to their symptoms worsening to the point where those around them became really concerned about them.

It was only because it [OCD] was causing me ... significant impairment at that point like... I wasn't going to classes; I wasn't leaving the house... The doctor was like we should probably refer you for an assessment. So, you can get more targeted help. (Ashley)

Interestingly, many people experienced a particular worsening of symptoms when restrictions started to lift, and people were no longer in lockdown. For some, this was linked to no longer feeling in control of their environment and not knowing if others had been following the regulations in the same way that they had been.

We were very contained during lockdown so I did not feel as anxious...I could control what I was doing and who I was with when there were still restrictions, which was less stressful ...When lockdown lifted there was less knowledge about who you'd been interacting with...I started to get more concerned with germs and things. (Irene)

For others, it was about finding it difficult to continue to hide their symptoms from other people when they were no longer in lockdown.

I now [when the restrictions lifted] had to go to work physically and I still had to wash my house, do everything clean everything frequently...it was so overwhelming. (Kieran)

3. People Understood Me.

With regards to protective factors, people with OCD's family and friends got a taste of the fear of contamination that those with OCD experienced and thus had more of a shared understanding. Moreover, due to the lockdowns, their family and friends noticed them struggling with symptoms and therefore offered more support.

Yes [family and friends understood my symptoms]. Because I was not the only one that was affected...It was kind of common stuff... I would say no one would like to die. They understood ... and they tried to lighten my mood. (Imogen)

My spouse liked to help me distract myself. Like take a break from my feelings. Or he taught me how to make new things.(Erica)

People with OCD particularly found comfort in having a shared understanding of life during the pandemic from others with OCD. Peer support became more developed online and this became more accessible. In addition, due to the difficulty of the situation and not always feeling understood by those around them, participants reached out to other people they knew had OCD to gain peer support.

Firstly ... it did help in the fact that I became part of the (a charities peer support scheme) so I had a group of people who understood me. I met some amazing friends from it. We have a group chat now. (Tahlia)

I found a guy ... he told me that there is this ... informal WhatsApp group whereby people share their ideas and how they survive... I was kind of relieved that actually I can talk to somebody who can understand me fully. (Matthew)

Discussion

This study aimed to gain an in-depth understanding of people with OCD's experience of the COVID-19 pandemic, in particular their triggers for symptoms worsening and their protective factors. Three themes were identified: "1. A very real threat!", "2. Everything was changing so I got worse!" and "3. People understood me." Main findings of this study included how OCD colluded with the real-life threat of the pandemic so that OCD had in a sense been "proven right"; how people's symptoms worsened at particularly uncertain points such as when restrictions lifted and the importance of peer support. These three findings will be discussed in turn.

First, the current study collaborates previous research around how the COVID-19 pandemic has worsened OCD symptoms and quality of life in those with OCD (Benatti et al., 2020; Davide et al. 2020; Jelinek et al., 2021; Khosravani et al., 2021; Tandt et al., 2022; Wheaton et al., 2021). However, this study provides further insight as to why this might be: the pandemic was interpreted as providing confirmatory information that they (their OCD) had been right all along. In a sense, it provided the confirmation of real danger and threat. As such their contamination concerns were worth the worry, and their compulsions felt necessary. Cleaning advice was being widely promoted via public health initiatives on an international level. As a result, people felt unable to challenge their symptoms which further exacerbated their symptoms. Moreover, with the increased government guidelines it felt difficult to distinguish whether their behaviour was a compulsion or proportionate to the risk of the pandemic. Thus, making it very difficult for those with OCD to challenge their symptoms.

Another finding of this study was that many people with OCD experienced a worsening of symptoms when lockdowns ended, and restrictions started to lift. During the COVID-19 pandemic, there was a lot of uncertainty regarding restrictions and the public had to adapt to lockdowns, following different guidelines and to restrictions lifting (Reizer et al., 2021). In general, the wider populations struggled with the uncertainty that the pandemic brought (Rettie & Daniels, 2021) and the lifting of lockdowns was a particularly uncertain time (Reizer et al., 2021). Therefore, the increased anxiety that people with OCD experienced is likely to reflect what the general population were experiencing at the time. However, anxiety around the future and intolerance of uncertainty can particularly impact OCD symptoms (Mahoney & McEvoy, 2012a; McEvoy & Mahoney, 2012b; Steketee et al., 1998). Moreover, increased OCD symptoms have previously been linked to a high desire to control the environment and a lower perceived sense of control of the environment (Moulding & Kyrios, 2007). This finding is also collaborated by Wheaton et al. (2021) who reported that intolerance of uncertainty partially accounted for the relationship between concern about the COVID-19 pandemic and OCD symptoms. Therefore, those with OCD faced extra challenges with the uncertainty that the lifting of lockdowns brought which exacerbated their OCD symptoms.

Finally, the current study highlighted the importance of peer support in protecting against the negative consequences of experiencing OCD during the pandemic. Previous research has reported how isolating OCD can be (Seçer & Ulaş, 2021) and how isolation can have negative impacts on people's mental health (Timpano et al., 2014). Halonen (2022) conducted a qualitative study and reported that people with OCD who had attended a peer support group reported that the feeling of mutual understanding and safety felt "liberating" (p.18) and as a result, they felt less isolated. In addition, a literature review on the use of peer support during the COVID-19

pandemic reported that is an effective tool to improve people's mental health (Suresh et al. (2021). As highlighted in this study and in previous research, OCD support groups can help people feel less isolated and to feel understood by others (Boratch, 1996).

Strengths and Limitations

The findings of this study provided novel, detailed information around people with OCD's experience of the COVID-19 pandemic. However, it is important to consider the strengths and limitations of this study when interpreting the analysis.

First, the inclusion criteria allowed for self-diagnosis of OCD and co-morbid illnesses. This decision was taken to get a clinically representative sample for the study as co-morbid illnesses are common amongst the OCD population (Ivarsson et al., 2007). This is likely to mean that there is a lot of variability in the study sample, and it may be difficult to know whether the impact of the pandemic stated in this study is unique to people with OCD or whether it is more applicable to people with mental health difficulties in general.

This study collected a variety of demographic information which was helpful to contextualise the sample. The sample were diverse in terms of gender, ethnicity, relationship status, living arrangement, employment status and level of education completed. Moreover, this study included an international sample from countries which are not usually represented in OCD research (Grover & Gupta, 2022) and the themes were shared amongst participant's nationalities. This thus decreases the risk of the results only being applicable to one culture. However, the age of the sample ranged between 18-30, meaning that this current study may not be representative of older individuals with OCD.

Clinical Implications

The current study has many implications for clinical practice. First, there is a need for a thorough assessment for those with OCD, particularly during times where either nationally or individually they do have to take precautions to keep either themselves or those around them safe. Candelari et al. (2021, p.2) provide a list of questions to help establish this, for example "Is the behaviour taking place in a ritualised way" or "does the behaviour go above and beyond national or local guidelines?" Candelari et al. (2021) highlight that ERP should not be stopped in circumstances such as the pandemic and by doing so, clinicians may be further colluding with the OCD. Instead, ERP for those with contamination concerns, should use the government guidelines to replace their compulsions. This study also indicates the importance of setting up peer support forums. The current study has also indicated that the pandemic was a difficult time even for those

without contamination-based OCD, e.g., for those who skin pick, suggesting the need for support for all people with OCD in future circumstances.

Future Research

Leading on from this study, future research would benefit from a longitudinal study focused on how people with OCD are coping since the restrictions of the pandemic have all been lifted. In the UK, restrictions relating to stopping the spread of COVID came to an end on the 24th of February 2022 (GOV.UK, 2022). However, there is a lack of research into the lasting impact of the COVID-19 pandemic for those with OCD. In addition, the effectiveness of CBT and ERP which has been adapted to include government guidelines would also support clinical practice for those with OCD.

Conclusion

This study has indicated several important insights into people with OCD's experience of the pandemic. These insights include how the pandemic colluded with people's OCD and made it difficult to challenge their OCD symptoms, how uncertainty worsened people with OCD's symptoms and the importance of peer support as a protective factor. Clinical implications include the need for thorough assessment; adapting but not stopping ERP and CBT; and the importance of peer support. Next steps for future research include a longitudinal study exploring the lasting impact of the pandemic for those with OCD and the effectiveness of adapted CBT and ERP in difficult circumstances.

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Executive Summaries

Systematic Literature Review

OCD is a mental health problem where people experience obsessions (persistent and distressing thoughts) and compulsions (behaviour that tries to protect against the obsessions; American Psychiatric Association, 2013). It was first classified as a mental health problem in the Diagnostic and Statistical Manual of Mental Disorders (DSM) in 1968. The aim of this literature review was to synthesise the current available literature to understand what the impact has been of the COVID-19 pandemic on people with OCD's symptomology.

Inclusion criteria were studies that focused on participants with OCD who are over the age of 18, explored the impact of a pandemic on OCD symptomology and those available in English. Books and guidance for clinicians were excluded from this study.

The literature search was conducted in January 2023, resulting in 33 studies for inclusion. In general, the studies reported an adverse impact on people with OCD's symptomology. However, there was substantial variety in terms of the percentages of people with OCD who were negatively affected reported. Moreover, it was not only contamination-based symptoms that worsened. For example, people with OCD also reported that their checking compulsions worsened. There was also some investigation into which people with OCD might be particularly at risk of the negative impacts of the pandemics.

Future research recommendations include: identifying the trajectories of OCD symptoms during the pandemics; exploring factors that may improve or stabilise symptoms; expanding future literature reviews to non-English studies to potentially capture further literature; evaluating the impact of restrictions lifting on those with OCD; assessing the inclusion of demographic characteristics in studies, and determining which people with OCD are particularly at risk of the negative impacts of pandemics.

Service-Related Project

Improving Access to Psychological Therapies Services (IAPT) was created in 2008 in England (NHS, 2019) with the aim of providing people with access to evidence-based treatments for common mental health problems (NHS Digital, 2021). However, patient dropout rates can be as high as 43% (Omylinska et al., 2019). The first aim of this service-related project was to compare the demographic and clinical characteristics of those who were discharged after their assessment session to those that remained on the waiting list at a local IAPT service. The second aim was to investigate the reason for leaving IAPT after the assessment session to make some

preliminary recommendations on how to improve their assessment process and increase continuance rates.

In November 2020, demographic and clinical data was extracted from a database called IAPTUS for patients that had attended an assessment session and were not currently receiving therapy between 01.11.19 and 01.11.20. The data was then split into two groups: those that remained on the waiting list for IAPT therapy and those that were discharged after the IAPT assessment session (assessment only; AO group). The discharge reason for the AO group was also extracted. Descriptive statistics were calculated and analysed in Excel.

In the AO group (compared to the group that remained on the waiting list): there was a higher proportion of men and a higher percentage of those who did not disclose their ethnicity or sexuality. In the AO group there were also more people: who were offered low intensity therapy, who displayed suicidal ideation, had social phobia, generalised anxiety disorder or major depressive disorder. However, there were fewer people who wanted psychological support for their long-term health conditions. When analysed, the most common discharge reasons were undisclosed, not signing up to their computerised CBT account, and the patient choosing an alternative route of therapy.

Clinical recommendations include demographic forms are reviewed and updated to ensure sensitivity and specificity, different options for assessment sessions are provided, and patients receive clear information whilst on the waiting list. Future research recommendations include qualitative research into why people choose to leave IAPT after their initial session and the accessibility of computerised CBT.

Main Research Project

Obsessive compulsive disorder (OCD) is a common mental health problem which affects approximately 1.2% of the population (Subramaniam et al., 2013). It is characterised by obsessions (unpleasant intrusive thoughts that cause distress) and compulsions (behaviours aimed at eliminating the distress caused by the obsessions).

Previous research has indicated that people with OCD were particularly negatively affected by the pandemic (Benatti et al., 2020; Davide et al. 2020; Jelinek et al., 2021; Khosravani et al., 2021; Tandt et al., 2022). However, there is currently limited qualitative research on people with OCD's experience of the pandemic, in particular their perception of what the triggers were for symptom worsening and their protective factors. Therefore, the current study aimed to explore this. Thematic analysis was used to analyse nineteen people with OCD's interviews.

Three themes were identified within the data. The first theme was: "A very real threat!". This captures how people with OCD experienced an increased sense of responsibility to keep their loved ones safe and experienced a very real threat of contamination. The second theme was: "Everything was changing so I got worse!" In this theme, participants spoke about their symptoms worsening in the pandemic due to uncertainty during the pandemic. The final, third theme was: "People understood me". This theme captures how participants found comfort from others with OCD. Peer support was more accessible during this time as it was online, and participants reached out to others with OCD due to the difficulty of the situation. Overall, this study highlighted the challenges faced by people with OCD and their protective factors during the pandemic.

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Appendix A

Preferred Reporting Items for Systematic Reviews and Meta - Analyses Literature Search Extension (PRISMA-S) Checklist

Figure 1

PRISMA-S Checklist

Section/topic	#	Checklist item	Location(s) Reported
INFORMATION SOURCES AND METHODS			
Database name	1	Name each individual database searched, stating the platform for each.	Page 9
Multi-database searching	2	If databases were searched simultaneously on a single platform, state the name of the platform, listing <u>all</u> of the databases searched.	N/A
Study registries	3	List any study registries searched.	N/A
Online resources and browsing	4	Describe any online or print source purposefully searched or browsed (e.g., tables of contents, print conference proceedings, web sites), and how this was done.	N/A
Citation searching	5	Indicate whether cited references or citing references were examined, and describe any methods used for locating cited/citing references (e.g., browsing reference lists, using a citation index, setting up email alerts for references citing included studies).	Page 9
Contacts	6	Indicate whether additional studies or data were sought by contacting authors, experts, manufacturers, or others.	Page 9
Other methods	7	Describe any additional information sources or search methods used.	N/A
SEARCH STRATEGIES			
Full search strategies	8	Include the search strategies for each database and information source, copied and pasted exactly as run.	
Limits and restrictions	9	Specify that no limits were used, or describe any limits or restrictions applied to a search (e.g., date or <u>time period</u> , language, study design) and provide justification for their use.	Page 90 - 97
Search filters	10	Indicate whether published search filters were used (as originally designed or modified), and if so, cite the filter(s) used.	N/A
Prior work	11	Indicate when search strategies from other literature reviews were adapted or reused for a substantive part or <u>all</u> of the search, citing the previous review(s).	N/A
Updates	12	Report the methods used to update the search(es) (e.g., rerunning searches, email alerts).	Page 10
Dates of searches	13	For each search strategy, provide the date when the last search occurred.	Page 10
PEER REVIEW			
Peer review	14	Describe any search peer review process.	Page 10
MANAGING RECORDS			
Total Records	15	Document the total number of records identified from each database and other information sources.	Page 12
Deduplication	16	Describe the processes and any software used to deduplicate records from multiple database searches and other information sources.	Page 11

Reference

Rethlefsen, M. L., Kirtley, S., Waffenschmidt, S., Ayala, A. P., Moher, D., Page, M. J., & Koffel, J. B. (2021). PRISMA-S: an extension to the PRISMA statement for reporting literature searches in systematic reviews. *Systematic Reviews*, 10(1), 1-19. doi: 10.1186/s13643-020-01542-z.

Appendix B

Literature Review - Search Strategy Protocol and Basic Search Strategy Terms

Table 2

Initial Database Search Protocols

Database	What Search Will Be Used	Fields that Search Will Be Conducted
APA (PsycInfo and PsycExtra)	Basic Search Strategy Index Terms	Abstract, title, keyword Index terms
Embase (Embase, PubMed and MEDLINE)	Basic Search Strategy Emtree Terms	Abstract, title, keyword Emtree Term Exploded
ProQuest	Basic Search Strategy	Anywhere except full text

Table 3

Basic Search Strategy Searches

Basic Search Strategy	Layers Used
Search One	OCD Layer AND Pandemic Layer
Search Two	OCD Layer AND COVID Layer

Table 4

Basic Search Strategy of Terms

Title of Layer	Basic Search Terms
OCD Layer	obsessive compulsive disorder obsessive compuls* OCD obsessions compulsions
Pandemic Layer	Epidemic syndemic disease outbreaks pandemic
COVID Layer	COVID-19 SARS-CoV-2

severe acute respiratory syndrome coronavirus 2

coronavirus

coronavirus disease 2019

2019 novel coronavirus disease

2019 novel coronavirus epidemic

2019 novel coronavirus infection

coronavirus disease-19

coronavirus infection 2019

COVID

COVID 19

COVID 2019

novel coronavirus 2019 disease

novel coronavirus 2019 infection

novel coronavirus disease 2019

Wuhan coronavirus disease

Wuhan coronavirus infection

Appendix C

Literature Review - APA PsycNet (PsycInfo and PsycExtra) Search Strategy

Limits

Databases: PsycInfo and PsycExtra

Dates: 1968-2023

OCD Layer

Table 5

APA PsycNet OCD Layer Terms

APA (PsycInfo and PsycExtra)	Index Terms
obsessive compulsive disorder	"obsessive compulsive disorder"
obsessive compuls*	
OCD	
obsessions	obsessions
compulsions	compulsions

Index Terms: "obsessive compulsive disorder" **OR Index Terms:** "obsessions" **OR Index Terms:** "compulsions" **OR Abstract:** 'obsessive compuls*' **OR Title:** 'obsessive compuls*' **OR Keywords:** 'obsessive compuls*' **OR Abstract:** OCD **OR Title:** OCD **OR Keywords:** OCD **AND Year:** 1968 To 2023

Pandemic Layer

Table 6

APA PsycNet Pandemic Layer Terms

APA (PsycInfo and PsycExtra)	Index Terms
epidemic	epidemic
syndemic	
disease outbreaks	"disease outbreaks"
pandemic	pandemics

Index Terms: epidemic **OR Index Terms:** "disease outbreaks" **OR Index Terms:** pandemics **OR Abstract:** syndemic **OR Title:** syndemic **OR Keywords:** syndemic **AND Year:** 1968 To 2023

COVID Layer

Table 7

APA PsycNet COVID Layer Terms

APA (PsycInfo and PsycExtra)	Index Terms
COVID-19	"COVID-19"
SARS-CoV-2	
Severe acute respiratory syndrome coronavirus 2	
coronavirus	"coronavirus"
coronavirus disease 2019	
2019 novel coronavirus disease	
2019 novel coronavirus epidemic	
2019 novel coronavirus infection	
coronavirus disease-19	
coronavirus infection 2019	
COVID	
COVID 19	
COVID 2019	
novel coronavirus 2019 disease	
novel coronavirus 2019 infection	
novel coronavirus disease 2019	
novel coronavirus infection 2019	
Wuhan coronavirus disease	
Wuhan coronavirus infection	

Index Terms: "COVID-19" **OR Index Terms:** "coronavirus" **OR Abstract:** "SARS-CoV-2" **OR Keywords:** "SARS-CoV-2" **OR Title:** "SARS-CoV-2" **OR Abstract:** "Severe acute respiratory syndrome coronavirus 2" **OR Keywords:** "Severe acute respiratory syndrome coronavirus 2" **OR Title:** "Severe acute respiratory syndrome coronavirus 2" **OR Abstract:** "coronavirus disease 2019" **OR Keywords:** "coronavirus disease 2019" **OR Title:** "coronavirus disease 2019" **OR Abstract:** "2019 novel coronavirus disease" **OR Keywords:** "2019 novel coronavirus disease" **OR Title:** "2019 novel coronavirus disease" **OR Abstract:** "2019 novel coronavirus epidemic" **OR Keywords:** "2019 novel coronavirus epidemic" **OR Title:** "2019 novel coronavirus epidemic" **OR Abstract:** "2019 novel coronavirus infection" **OR Keywords:** "2019 novel coronavirus infection" **OR Title:** "2019 novel coronavirus infection" **OR Abstract:** "coronavirus

disease-19" **OR Keywords:** "coronavirus disease-19" **OR Title:** "coronavirus disease-19" **OR Abstract:** "coronavirus infection 2019" **OR Keywords:** "coronavirus infection 2019" **OR Title:** "coronavirus infection 2019" **OR Abstract:** COVID **OR Keywords:** COVID **OR Title:** COVID **OR Abstract:** "COVID 19" **OR Keywords:** "COVID 19" **OR Title:** "COVID 19" **OR Abstract:** "COVID 2019" **OR Keywords:** "COVID 2019" **OR Title:** "COVID 2019" **OR Abstract:** "novel coronavirus 2019 disease" **OR Keywords:** "novel coronavirus 2019 disease" **OR Title:** "novel coronavirus 2019 disease" **OR Abstract:** "novel coronavirus 2019 infection" **OR Keywords:** "novel coronavirus 2019 infection" **OR Title:** "novel coronavirus 2019 infection" **OR Abstract:** "novel coronavirus disease 2019" **OR Keywords:** "novel coronavirus disease 2019" **OR Title:** "novel coronavirus disease 2019" **OR Abstract:** "novel coronavirus infection 2019" **OR Keywords:** "novel coronavirus infection 2019" **OR Title:** "novel coronavirus infection 2019" **OR Abstract:** "Wuhan coronavirus disease" **OR Keywords:** "Wuhan coronavirus disease" **OR Title:** "Wuhan coronavirus disease" **OR Abstract:** "Wuhan coronavirus infection" **OR Keywords:** "Wuhan coronavirus infection" **OR Title:** "Wuhan coronavirus infection" **AND Year:** 1968 To 2023

Appendix D

Literature Review – Embase (Embase, PubMed and MEDLINE) Search Strategy

Limits

Databases: Embase, Embase Classic, PubMed and MEDLINE

Dates: 1968-2023

(Deselected the Mapping Term Options)

OCD layer

Table 8

Embase OCD Layer Terms

Basic Search	Emtree Terms
obsessive compulsive disorder	obsessive compulsive disorder (mf)
obsessive compuls*	
OCD	OCD (mf)
obsessions	obsession (mf)
compulsions	compulsion (mf)

('obsessive compuls*':ab,ti,kw OR 'obsessive compulsive disorder'/mj OR ocd OR 'obsession'/mj OR 'compulsion'/mj) AND ([embase]/lim OR [medline]/lim OR [embase classic]/lim OR [pubmed-not-medline]/lim) AND [1968-2023]/py

Pandemic Layer

Table 9

Embase Pandemic Layer Terms

Basic Search	Emtree Terms
epidemic	epidemic (ex)
syndemic	syndemic (ex)
disease outbreaks	
pandemic	pandemic (ex)

('epidemic'/exp OR 'syndemic'/exp OR 'disease outbreaks':ab,ti,kw OR 'pandemic'/exp) AND ([embase]/lim OR [medline]/lim OR [embase classic]/lim OR [pubmed-not-medline]/lim) AND [1968-2023]/py

COVID Layer**Table 10***COVID Layer Terms*

Basic Search	Emtree Terms
COVID-19	
Severe acute respiratory syndrome	Severe acute respiratory syndrome
coronavirus 2	coronavirus 2 (mf)
SARS-CoV-2	
Coronavirus	Coronavirinae (mf)
Coronavirus Disease 2019	coronavirus disease 2019
2019 novel coronavirus disease	
2019 novel coronavirus epidemic	
2019 novel coronavirus infection	
coronavirus disease-19	
coronavirus infection 2019;	
COVID	
COVID 19	
COVID 2019	
novel coronavirus 2019 disease	
novel coronavirus 2019 infection	
novel coronavirus disease 2019;	
novel coronavirus infection 2019	
Wuhan coronavirus disease	
Wuhan coronavirus infection	

('severe acute respiratory syndrome coronavirus 2'/mj OR 'coronavirinae/mj' OR 'coronavirus disease 2019'/mj OR 'covid-19':ab,ti,kw OR '2019 novel coronavirus disease':ab,ti,kw OR '2019 novel coronavirus epidemic':ab,ti,kw OR '2019 novel coronavirus infection':ab,ti,kw OR covid:ab,ti,kw OR 'covid 19':ab,ti,kw OR 'covid 2019':ab,ti,kw OR 'novel coronavirus 2019 disease':ab,ti,kw OR 'novel coronavirus 2019 infection':ab,ti,kw OR 'novel coronavirus disease 2019':ab,ti,kw OR 'novel coronavirus infection 2019':ab,ti,kw OR 'wuhan coronavirus disease':ab,ti,kw OR 'wuhan coronavirus infection':ab,ti,kw) AND ([embase]/lim OR [medline]/lim OR [embase classic]/lim OR [pubmed-not-medline]/lim) AND [1968-2023]/py

Appendix E

Literature Review - ProQuest Search Strategy

Limits

Dates: 01.01.1968 and 31.01.23

Sources: Dissertation and Theses

Document Type: Dissertation and Theses

Language: English

OCD Layer

noft('obsessive compulsive disorder' OR OCD OR 'obsessive compuls*' OR obsessions OR compulsions) AND stype.exact("Dissertations & Theses") AND at.exact("Dissertation/Thesis") AND la.exact("English")

Pandemic Layer

noft('disease outbreaks' OR pandemic OR epidemic OR syndemic) AND stype.exact("Dissertations & Theses") AND at.exact("Dissertation/Thesis") AND la.exact("English")

COVID Layer

noft(COVID OR 'COVID 19' OR 'COVID 2019' OR 'novel coronavirus 2019 disease' OR 'novel coronavirus 2019 infection' OR 'novel coronavirus disease 2019' OR 'Wuhan coronavirus disease' OR 'Wuhan coronavirus infection' OR 'COVID-19' OR 'SARS-CoV-2' OR 'severe acute respiratory syndrome coronavirus 2' OR 'coronavirus' OR 'coronavirus disease 2019' OR '2019 novel coronavirus disease' OR '2019 novel coronavirus epidemic' OR '2019 novel coronavirus infection' OR 'coronavirus disease-19' OR 'coronavirus infection 2019') AND stype.exact("Dissertations & Theses") AND at.exact("Dissertation/Thesis") AND la.exact("English") AND pd(19680101-20221231)

Notes:

Anywhere except full text option as any field gave thousands of results and a lot of irrelevant options.

Appendix F

Literature Review - Inclusion and Exclusion Criteria

Table 11

Inclusion and Exclusion Criteria for Literature Review

	Inclusion Criteria	Exclusion Criteria
Date	1968-2023 (January)	Before 1968 (When OCD was not yet recognised by the DSM)
Participants	People with a diagnosis of OCD according to the DSM (American Psychiatric Association, 2013) or ICD (World Health Organisation, 2004) and/ or self-reported OCD who are over the age of 18.	Children under the age of 18
Interest	OCD symptomology measures and quality of life measures.	
Context	COVID-19 pandemic (2019)	
Study Design	All	Other literature reviews. Documents which are guidelines rather than studies.
Language	English or English translation available.	

Table 14*Individual MMAT Ratings for Quantitative Descriptive Studies*

Citation	SCREENING QUESTIONS		4. QUANTITATIVE DESCRIPTIVE STUDIES				
	S1. Are there clear research questions?	S2. Do the collected data allow to address the research questions?	4.1. Is the sampling strategy relevant to address the research question?	4.2. Is the sample representative of the target population?	4.3. Are the measurements appropriate?	4.4. Is the risk of nonresponse bias low?	4.5. Is the statistical analysis appropriate to answer the research question?
Alonso (2021)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Benatti et al. (2020)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Hassoulas et al. (2022) *	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Højgaard et al. (2021)*	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Jelinek et al. (2021a)*	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Kaveladze et al. (2021)*	Yes	Yes	Yes	Can't tell	Yes	No	Yes
Pinciotti et al. (2022)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Quitkat et al. (2020)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Siddiqui et al. (2022)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Tulacı 2022	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Van Ameringen et al. (2022)	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 15*Individual MMAT Ratings for Mixed Method Studies*

Citation	SCREENING QUESTIONS		5. MIXED METHODS STUDIES				
	S1. Are there clear research questions?	S2. Do the collected data allow to address the research questions?	5.1. Is there an adequate rationale for using a mixed methods design to address the research question?	5.2. Are the different components of the study effectively integrated to answer the research question?	5.3. Are the outputs of the integration of qualitative and quantitative components adequately interpreted?	5.4. Are divergences and inconsistencies between quantitative and qualitative results adequately addressed?	5.5. Do the different components of the study adhere to the quality criteria of each tradition of the methods involved?
Wheaton et al. (2021)	Yes	Yes	Yes	Yes	Yes	Yes	Yes

An asterix (*) represents the papers that were also rated by a secondary reviewer and a consensus was reached for the score.

Appendix H

Literature Review – Author Guidelines for Clinical Psychology Review

Scope of Clinical Psychology Review

Clinical Psychology Review publishes substantive reviews of topics germane to clinical psychology. Papers cover diverse issues including: psychopathology, psychotherapy, behavior therapy, cognition and cognitive therapies, behavioral medicine, community mental health, assessment, and child development. Papers should be cutting edge and advance the science and/or practice of clinical psychology.

Reviews on other topics, such as psychophysiology, learning therapy, experimental psychopathology, and social psychology often appear if they have a clear relationship to research or practice in clinical psychology. Integrative literature reviews and summary reports of innovative ongoing clinical research programs are also sometimes published. Reports on individual research studies and theoretical treatises or clinical guides without an empirical base are not appropriate.

Use of inclusive language

Inclusive language acknowledges diversity, conveys respect to all people, is sensitive to differences, and promotes equal opportunities. Content should make no assumptions about the beliefs or commitments of any reader; contain nothing which might imply that one individual is superior to another on the grounds of age, gender, race, ethnicity, culture, sexual orientation, disability, or health condition; and use inclusive language throughout. Authors should ensure that writing is free from bias, stereotypes, slang, reference to dominant culture and/or cultural assumptions. We advise to seek gender neutrality by using plural nouns ("clinicians, patients/clients") as default/wherever possible to avoid using "he, she," or "he/she." We recommend avoiding the use of descriptors that refer to personal attributes such as age, gender, race, ethnicity, culture, sexual orientation, disability, or health condition unless they are relevant and valid. When coding terminology is used, we recommend to avoid offensive or exclusionary terms such as "master", "slave", "blacklist" and "whitelist". We suggest using alternatives that are more appropriate and (self-) explanatory such as "primary", "secondary", "blocklist" and "allowlist". These guidelines are meant as a point of reference to help identify appropriate language but are by no means exhaustive or definitive.

Reporting guidance

For research involving or pertaining to humans, animals or eukaryotic cells, investigators should integrate sex and gender-based analyses (SGBA) into their research design according to

funder/sponsor requirements and best practices within a field. Authors should address the sex and/or gender dimensions of their research in their article. In cases where they cannot, they should discuss this as a limitation to their research's generalizability. Importantly, authors should explicitly state what definitions of sex and/or gender they are applying to enhance the precision, rigor, and reproducibility of their research and to avoid ambiguity or conflation of terms and the constructs to which they refer (see Definitions section below). Authors can refer to the [Sex and Gender Equity in Research \(SAGER\) guidelines](#) and the [SAGER guidelines checklist](#). These offer systematic approaches to the use and editorial review of sex and gender information in study design, data analysis, outcome reporting and research interpretation - however, please note there is no single, universally agreed-upon set of guidelines for defining sex and gender.

Article Structure

- Ensure manuscript is a comprehensive review article (empirical papers fall outside the scope of the journal)
- Ensure that literature searches and reviews are as up to date as possible and at least to 3 months within date of submission
- Manuscript has been 'spell checked' and 'grammar checked'
- All references mentioned in the Reference List are cited in the text, and vice versa
- Permission has been obtained for use of copyrighted material from other sources (including the Internet)
- A competing interests statement is provided, even if the authors have no competing interests to declare
 - Journal policies detailed in this guide have been reviewed
- Referee suggestions and contact details provided, based on journal requirements
- Ensure manuscripts do not exceed 50 pages, including references and tabular material, unless you have obtained prior approval of the Editor in Chief for an exception
- Ensure Highlights do not exceed 3 to 5 bullet points with a maximum of 85 characters, including spaces, per bullet point.

Appendices

If there is more than one appendix, they should be identified as A, B, etc. Formulae and equations in appendices should be given separate numbering: Eq. (A.1), Eq. (A.2), etc.; in a subsequent appendix, Eq. (B.1) and so on. Similarly for tables and figures: Table A.1; Fig. A.1, etc.

Abstract

A concise and factual abstract is required (not exceeding 200 words). This should be typed on a separate page following the title page. The abstract should state briefly the purpose of the research, the principal results, and major conclusions. An abstract is often presented separate from the article, so it must be able to stand alone. References should therefore be avoided, but if essential, they must be cited in full, without reference to the reference list.

Keywords

Immediately after the abstract, provide a maximum of 6 keywords, using American spelling and avoiding general and plural terms and multiple concepts (avoid, for example, 'and', 'of'). Be sparing with abbreviations: only abbreviations firmly established in the field may be eligible. These keywords will be used for indexing purposes.

Abbreviations

Define abbreviations that are not standard in this field in a footnote to be placed on the first page of the article. Such abbreviations that are unavoidable in the abstract must be defined at their first mention there, as well as in the footnote. Ensure consistency of abbreviations throughout the article.

Tables

Please submit tables as editable text and not as images. Tables can be placed either next to the relevant text in the article, or on separate page(s) at the end. Number tables consecutively in accordance with their appearance in the text and place any table notes below the table body. Be sparing in the use of tables and ensure that the data presented in them do not duplicate results described elsewhere in the article. Please avoid using vertical rules and shading in table cells.

References

Citations in the text should follow the referencing style used by the American Psychological Association. You are referred to the most recent publication manual of the American Psychological Association. Information can be found at <https://apastyle.apa.org/>

Appendix I

Service-Related Project - Consultation with a Person with Personal Experience Minutes

Context

In a research study of an Improving Access to Psychological Therapies (IAPT) service, it was identified that many people were leaving the service after their assessment session. Although, discharge reasons were documented for many people, these reasons were brief and contained little detail. Therefore, consultation was sought from a person with personal experience of IAPT services to inform the clinical recommendations and future research sections. The person who was consulted has been given a pseudonym to keep these minutes anonymous.

Discharge Reasons

General Comments

It was suggested that people's reasons for discharging themselves needed to be thoroughly investigated, and those who choose to leave the IAPT service before completing their treatment should be systematically followed up.

Computerised Cognitive Behavioural Therapy (C-CBT)

Martin commented on how thirty-nine people's discharge reason being not signing up to the computerised C-CBT programme, was an extremely high number. He wondered whether this was because some people do not have the technical knowledge and the support to access this system or had preferences for face-to-face contact with a therapist who was not available to them. What was their age, gender, ethnicity and how serious was their mental health condition? Did they have anything in common?

Is IAPT/ CBT the Right Service for People?

It was questioned how it is decided that CBT is or is not the right treatment for individuals who self-refer. Does the patient come to this conclusion themselves? Is this decided by the therapist and patient together? Or does the clinician decide this? Martin also emphasised how important it is that this decision is communicated back to the patient and the GP so the GP can decide what other services might be more appropriate. Martin also asked whether the patient is referred on by the IAPT service or if they get signposted to other services. Martin suggested that these questions would benefit from further investigation.

Are Patients Deterred by Indefinitely Long Waiting Times

Martin was surprised that only two people were deterred by the very long waiting times. He thought it was possible that many more people could have been deterred by waiting times and discharged themselves. Martin also questioned how clearly waiting times are communicated to the patient as in his experience, it was quite vague, and he was left feeling unsure of how long it would take. He also reported that the plan for his therapy was clearly communicated, and this made long waiting times even more anxiety provoking.

Risk Level

Martin also asked whether there was a risk register for identifying patient safety because of delays in treatment and whether people are monitored due to this risk register. In addition, whilst on the waiting list patient's needs may have changed and these changes should be registered and recorded on file. For instance, people may have been placed on the low intensity waiting list, but their mental health may have deteriorated whilst on the waiting list and now require higher intensity therapy. Therefore, wait list monitoring is essential, particularly if the waiting list is more than six months. Similarly, it seems important to do a risk assessment at the point of people discharging themselves. In addition, Martin asked who holds the risk of the patient if they self-referred themselves. He also questioned if it is possible whether people can be offered therapy which is quicker to provide whilst on the waiting list (e.g., computerised CBT). Could there also be a case for doing a risk assessment at the point of people discharging themselves and checking that they are and the people around them are safe. The research paper should also define risk level more clearly, especially "risk level assigned to a practitioner," as it is not clear what this means.

Patient Ill Health

What does patient ill health mean? How is it defined in terms of eligibility for IAPT? How are physical ill health issues and adaptations assessed? Is consideration given to any adaptation needs on assessment that can be made so that they can access IAPT?

Patients who have Improved since the Initial Assessment

Martin asked about the people who discharge themselves from IAPT and how they might be described or classified as having "improved" sufficiently in their mental health and well-being to warrant closure of their case. Martin also questioned why people with the greatest need at assessment (assigned to high intensity therapy), may have discharged themselves from the service. As high intensity therapy has a longer waiting list, it is possible that the long waiting lists

were a contributory factor. For instance, they might have decided to go to private therapy or have found non-professional support. Alternatively, they may not feel that they have improved but do not feel motivated enough to wait indefinitely for treatment. Martin reported that it would be good to research this further and discover what “improved” means for the patient and the service provider too. Especially as twenty-one people were assigned to this group.

Diagnoses

It would be helpful to have a description in the report around how diagnoses are decided in IAPT and how these diagnoses are communicated back to the patient. Clear information about the diagnosis should be given back to the client.

What happens to people with co-morbidities? Are they still deemed suitable for IAPT?

Ethnicity Monitoring Forms

Many patients decided to not disclose their ethnicity. Martin questioned how up to date the ethnicity monitoring forms are and whether they would benefit from revision. It is possible that the groups are not specific/ sensitive enough and this could contribute to people not disclosing their demographic details. Martin also queried how this IAPT’s demographic compares to other IAPT services demographic.

Referral

Martin also reported that it would be interesting to know more about who was referred by their GP and who self-referred. It would also be interesting to know how active GPs are in promoting IAPT?

It should also be clearly communicated what kind of support/ what level of support people will get from IAPT. Are people given very practical information about what support they are given? If people are not clear on the support they are given, they might discharge themselves.

GAD-7/PHQ-9 Scores

Are people given their GAD-7/PHQ-9 scores back?

Caseness

What does caseness mean and how is it decided? How is this communicated back to the patient and their GP?

The Assessment

Can people now choose how their assessment is done i.e., on the phone, online or face to face. This could influence the dropout rates.

Action Points

Changes to the Paper

- Define the different risk levels clearly.
- Define what caseness means.
- Describe how diagnoses are decided in IAPT and how these diagnoses are communicated back to the patient.
- IAPT's eligibility criteria should be expanded upon e.g., what happens to people with co-morbidities.

Recommendations For This IAPT Service

- The following information needs to be clearly communicated back to the patient and their GP (if not done so already): their diagnoses; their risk level; whether they meet "caseness" and eligibility criteria; their PHQ-9 and GAD-7 scores; the waiting list times and what therapy they have been referred for. They should also be given practical information about the support they will be receiving e.g. "You will receive 6 sessions of weekly online therapy".
- Patients should be given different options around how their assessment is conducted e.g., phone, online or face to face.
- Patients should be monitored whilst on the waiting list, in particular their risk level. It is also beneficial to provide patients with reassurance that they are still on the waiting list for therapy and may benefit from motivational interviewing.
- The demographic forms should be reviewed and potentially updated to ensure demographic groups are sensitive and specific enough.

Future Research Recommendations

- The dropout rates of those that self-referred compared to those that were referred by the GP.
- How knowledgeable GPs are of IAPT's eligibility criteria and alternative services.
- The meaning of patient ill health and adaptations to IAPT for people with physical health should be investigated.
- Further research needs to be done around people's discharge reason, there is a large group of people who did not report their discharge reason. In addition, "patient has

improved” needs to be defined clearly and research done into whether the found support elsewhere.

- There needs to be research into barriers around computerised CBT, are some people unable to access a computer/ Wi-Fi? Are there particular demographic groups that struggle to sign up to computerised CBT.

Appendix J

Service-Related Project – Author Guidelines for Journal of Mental Health & Clinical Psychology

Research Article: A Research article reports the new results of original scientific research within the journal's scope. Research papers deal with its subject in depth. Generally these papers are expected to include Title, Abstract, Keywords, Background/Introduction, Materials and Methods, Results and Discussion, Conclusions, List of abbreviations used (if any), Competing interests (if any), Authors' contributions, Authors' information, Acknowledgements, Funding, Endnotes (if any), References, Illustrations and figures (if any), Tables and captions (if any), and Additional supplementary files (if any). Papers that are exclusively methodological or that the editors of the journal present models or hypothesis unsupported by original data are not acceptable. Research papers are generally expected to include 3000 – 6000 words excluding abstract and references.

Manuscript Submission Checklist

1. Manuscripts must be prepared in a clear font (12 pt) and the text must be double-spaced.
2. **Title Page:** The title page should contain the **title** of the paper, the **author's name**, and the **institutional affiliation**. The title should not have more than 12 words and it should not contain abbreviations or words that serve no purpose. Author's name includes first name, middle initial(s), and last name. Do not use titles (Dr.) or degrees (Ph.D.). All the authors must meet the authorship criteria. Institutional affiliation should indicate the location where the author(s) conducted the research.
3. **Abstract:** An abstract summarizes the paper describing the scope of the investigation, results obtained and major conclusions. An abstract should contain a minimum of 150 words and a maximum of 250 words.
4. **Keywords:** Keywords can be taken from the title and abstract. Keywords should not be less than six.
5. **Text:** Type the text double-spaced with all sections following each other without a break. Avoid poetic language and rhyming schemes. Use simple, descriptive adjectives and plain language that does not risk confusing your meaning. Each source you cite in the paper must appear in your reference list; likewise, each entry in the reference list must be cited in your text. In the text, reference numbers are given in superscript.
6. **Example for Reference Citations in Text:** The author has discussed the implications of these proposals on the National Health Service in another paper¹. Other writers have commented on related issues, notably Lane^{2,3} and Lewis⁴.

7. **Acknowledgment:** Acknowledgment, including financial supports along with the numbers of grants and funding information, should be stated after results and discussion part of the text.
8. **A Conflict of Interest statement** is included in the main manuscript file and appears before the reference listing.
9. **Tables:** Number all tables sequentially as you refer to them in the text (Table 1, Table 2, etc.). Label tables with an Arabic numeral and provide a title. The label and title appear on separate lines above the table. Title of the table is written in italics. Cite the source of the table in a note below the table. Include an explanation of every abbreviation and special symbol (except the standard statistical symbols and abbreviations). To indicate specific notes, use superscript lowercase letters (e.g. a, b, c), and order the superscripts from left to right, top to bottom. Each table's first footnote must be the superscript a.
10. **Figures:** Number your figures consecutively as they are referenced in the text. If a figure has multiple panels, refer to parts of the figure as (a), (b), (c), etc. Label figures with an Arabic numeral and provides a title. The label and the title appear on the same line below the figure. The label must be in italics i.e., *Figure x*. Title of the figure must be in sentence case. If the figure has a title in the image, crop it. The text in a figure should be in a sans serif font (such as Helvetica, Arial, or Futura). The font size must be between eight and fourteen points. Follow the title with a legend that explains the symbols in the figure and a caption that explains the figure. Cite the source below the label and the title.
11. **References:** A list of references must be provided at the end of the scientific text. This list must include the full information for all the works cited in the running text. The entries in the reference list are placed in the same order in which they were cited in the text. **Basic form of reference:**
 - a. **Standard Format for Journal Articles:**
Author Surname Initials. Title of article. Title of journal, abbreviated. Date of Publication; Volume Number(Issue Number): Page Numbers.
 - b. **Standard Format for Books:**
Author Surname Initials. Title: subtitle. Edition (if not the first). Place of publication: Publisher; Year.
 - c. **Standard Format for Websites:**
Author Surname Initials (if available). Title of Website [Internet]. Place of publication: Publisher; Date of First Publication [Date of last update; cited date]. Available from: URL

Appendix K

Main Research Project – Full Interview Schedule

Hi X,

Introduction

My name is Katie Wise.

Thank you for speaking with me today.

You are welcome to keep your camera on or off. Would you prefer for me to have my camera on or off?

If it is okay with you, can I start recording? Then I can explain a bit about the interview.

Before we start, I just want to check a few things with you. You have previously participated in part one of this study by completing an online questionnaire; this telephone interview today is part two of the study.

Consent

At the end of the questionnaire, you provided consent via a consent form. May I please confirm with you that you still consent to take part in this interview?

Thank you, the consent form also stated that the interview would be recorded so that we can type up your responses so they can be analysed anonymously. The consent form that you completed in part one of this study indicates that you consent to the interview being recorded. May I please confirm if you still consent to have this interview recorded today? Do you have any questions?

Outline of the Interview

Today, I am going to ask you a few questions today about the COVID-19 pandemic and your experience of OCD during it. Feel free to ask me any questions you have at any point during the interview. If you want to stop or take a break at any time that is fine, just let me know. At the end, I will give you the opportunity to add any other information I haven't asked about and give you the option of doing a short relaxation exercise.

You can end and withdraw from the study at any point. We can also take a break and pause the interview at any point, just let me know. Do you have any questions for me before we begin the interview?

Beginning of Questions

1. Can you please tell me about your experience of the COVID-19 pandemic? Prompts: Were you living in the UK the whole time during the pandemic? If not, what restrictions did the

country you were in have (e.g. lockdowns)? Were you a keyworker or did you have to stay at home? What was that like (either having to be in lockdown or going to work?) Who were you living with during the pandemic? Did you notice your OCD symptoms worsening or improving or staying the same? Did you notice any change in symptoms (e.g. developing contamination related symptoms?) Did you or your family members have COVID at all during the pandemic? What was the effect of this on your symptoms? Did you feel you had to do anything differently (compared to what was being nationally advised)?

2. (If symptoms worsened): what do you think triggered the symptoms worsening? Prompts: At what point did your symptoms worsen? How did you know they were getting worse? What symptoms worsened? There was a lot of uncertainty around the future during the COVID-19 pandemic. Do you think this impacted you and your symptoms?
3. (If symptoms improved): why do you think the symptoms improved? Prompts: When did the symptoms improve? How did the symptoms improve?
4. Were you in the clinically vulnerable category? (If they say yes) Could you tell me a bit about how this was for you? Did it impact your OCD symptoms? Were you living with anyone in the clinically vulnerable category? What impact did this have?
5. What specific treatment or support (both professional and personal) did you receive during the pandemic? How helpful was this support/ treatment? Was this therapy online? Did you feel it worked well? Did you feel that friends and family understood your symptoms better? If you did not receive much support, what do you think could have been helpful? Was there anything else that helped you through the experience? (Remember to ask about both – was social support/ friends/ family available to you during the pandemic?) If it was or wasn't available – was this a change during the pandemic.
6. What was your experience of coming out of lockdown? Did you notice any change in symptoms then? Did your symptoms worsen/ improve?
7. What is your experience now with the COVID-19 pandemic? (With no/ a lot less restrictions and people wanting to “return to normal”). Prompt: COVID is not as reported

in the media now, what has the impact of that been? Any changes that resulted from the pandemic that you would like to continue – whether it is treatment or life in general?

Check for Further Information before Finishing

Thank you so much, before we finish, I wondered if there was anything else you wanted to add that we have spoken about?

Check for Questions.

Thank you.... Do you have any *questions*?

Debrief

I would like to remind you of the services we mentioned on the debrief form when you participated in the online questionnaire. Would you like any of this information sent to you again? Or I can tell you more about this now.

Optional Relaxation Exercise

In the information sheet, we also mentioned that at the end of the phone call, there would be an opportunity to take part in an optional exercise to help people transition out of the study and manage any difficult feelings that may have been brought up? I am wondering if you would like me to guide you through a 5-minute exercise to signify this study coming to an end?

I have the following exercises available:

- An exercise where I read you a script about being at the beach.
- An exercise where you relax each body part in turn.

Risk Check

What are your plans for the rest of the day/ (what can you do to take care of yourself?)

Thank you for taking part in this project, your contribution is very much appreciated.

If you have any concerns related to your participation in this study please direct them to the Chair of the Department of Psychology Research Ethics Committee, email: psychology-ethics@bath.a.uk or can email us at OCD-COVID@bath.ac.uk.

Appendix L

Main Research Project – Online Questionnaire including Information Sheet, Consent Form and Debrief Form.

Introduction Screen

What is the experience of the COVID-19 Pandemic for people experiencing obsessive compulsive disorder?

Hello, thank you for taking the time to consider taking part in this study, which is being conducted by Katie Wise and Dr Josie Millar. We are from the University of Bath; Katie is a trainee Clinical Psychologist and Josie is a qualified Clinical Psychologist. The study has **2 parts**: an online questionnaire and an interview. The aim is to find out more about the experience of the COVID-19 pandemic for those that have OCD. If you are aged 18+ and currently experience OCD, we would welcome your participation. Please read the information sheet on the next page carefully before choosing whether you would like to take part. This study has been approved by the University of Bath Psychology Research Ethics Committee (reference number: 21-218).

Information Sheet

What is the experience of the COVID-19 pandemic for people experiencing obsessive compulsive disorder?

What is this study about?

The COVID-19 pandemic has drastically impacted people's lives worldwide. It has been reported that people with OCD have experienced their symptoms worsening during the pandemic. However, there are lots of aspects of people with OCD's experience that we still do not know. For instance, their experience of restrictions lifting and what support they received.

Who can take part?

You are welcome to participate in this study if you are an adult over the age of 18 and who has personal experience of OCD. The study takes place via an online questionnaire and a telephone or online interview; therefore, you do not have to be based in the UK to take part. However, you do need to be fluent in English to participate.

For safety reasons, we advise people who are experiencing active difficulties with thoughts of suicide to not take part in this study. Instead, we would suggest that you contact your GP, if you are not already in contact with local services.

What will I be asked to do?

There are two parts to this study.

Part 1: Online Questionnaire

In the first part, you will be asked to complete a questionnaire online. The questionnaire will ask you questions about your experience of OCD and your experiences of emotions. We would expect the questionnaire to take approximately 20-30 minutes to complete.

Part 2: Online Interview

The second part of this study involves an online interview. If you meet our inclusion criteria, you will be invited to take part in the interview. The inclusion criteria for the online interview are the same as the questionnaire: having personal experience of OCD and being over the age of 18. At the end of the questionnaire, you will be asked to give your email address so that the main researcher, Katie Wise, can organise a mutually convenient date and time for the interview to take place. This interview is expected to take between 30 minutes to one hour, depending on how much information you choose to share, and will focus on understanding how the COVID-19 pandemic has impacted people with OCD. I will ask for your consent to record the interview so that your responses to the questions can be typed up and analysed. The recording of the interview will be destroyed once it has been typed up. You will also be asked to provide an email address so that £15 can be sent to you as a thank you for your time and participation. After reading this form, if you decide you want to take part, you will need to read and sign the consent form, which will appear on the next screen.

Do I have to take part?

Taking part in this research is entirely voluntary, and you are free to make your own choice about whether you want to participate. If you agree to take part, you can choose not to answer any questions that you do not want to and you are free to withdraw up to fourteen days after taking part in the interview, without having to give a reason. If you are completing the questionnaire online and decide to withdraw before completing the questionnaire, then you simply need to 'exit' the questionnaire. After you have finished participating and have completed and submitted the questionnaire but then wish to withdraw the response, please contact the researcher, and ask for your response (on either the questionnaire or the interview or both) to be withdrawn if you wish. However, please note 14 days after your questionnaire responses and interviews have been completed, all responses will be completely anonymised meaning that it is not possible to tell whose responses are whose anymore. From this point, you will not be able to be able to withdraw your responses as they will not be identifiable.

What will happen to the information I provide?

Should you decide to take part, the interview will be recorded. These recordings will then be

typed up and the files stored on a password protected computer in a secure password protected file. Any potentially identifying details, including your name, will be removed. The interview information and recording will not be linked to any contact details that you provide and will be stored separately so you cannot be identified. Once the project is completed, the information you have given will be kept safely by the University of Bath; it will be archived for 10 years after the project has ended. If you give your consent, it may be used by other researchers, with the University of Bath's approval, under the strict rules governing the confidentiality of your information. So, your name, or any material that might identify you, will never be used or given to anyone.

Are there any risks?

It is possible that some people may find thinking about their experiences distressing. If you find this is the case whilst completing either the online questionnaire or the interview you are welcome to take a break whenever you need to. Alternatively, you are welcome to stop participating altogether and withdraw your responses. At the end of the questionnaire, all participants will be shown a debrief form which will contain information regarding local services you can contact for support. If you withdraw from the study before this debrief form is presented to you, but would like to be signposted to local services, you can contact the main researcher on the email below. Before the interview comes to an end, you will be invited to participate in an optional five-minute relaxation exercise to help you transition to continuing with the rest of your day. However, this is optional and can be skipped if you do not wish to do this.

What will happen to the results of this research?

What you tell us will inform our understanding of how the COVID-19 pandemic has impacted people with OCD. We may use extracts taken from what you have told us, however these would not identify you to anyone. The findings of the research may also be published in research journals or used in presentations, but you would not be identifiable in any way.

The University of Bath privacy notice can be found here: <https://www.bath.ac.uk/corporate-information/university-of-bath-privacy-notice-for-research-participants/>.

What do I do if I would like to take part or have any more questions?

If you would like to participate, you are welcome to click to continue and the next form will be a consent form, following this you will be able to complete the online questionnaire.

You can contact Katie Wise or Josie Millar to discuss any questions you might have. Our email is: OCD-COVID@bath.ac.uk. If you have any concerns related to your participation in this study,

please direct them to the department of Psychology Research Ethics Committee via email:
 psychology-ethics@bath.ac.uk.

Many thanks for taking the time to read this. I would be delighted if you would be willing to take part.



Consent Form

Please answer the questions to the best of your knowledge.

Do you confirm that:	Yes	No
You are over the age of 18	<input type="checkbox"/>	<input type="checkbox"/>
Have personal experience of OCD	<input type="checkbox"/>	<input type="checkbox"/>
Identify OCD as your primary problem	<input type="checkbox"/>	<input type="checkbox"/>
Have you:		
Been given information explaining about this study?	<input type="checkbox"/>	<input type="checkbox"/>
Had an opportunity to ask questions and discuss this study if you wanted to?	<input type="checkbox"/>	<input type="checkbox"/>
Received satisfactory answers to all questions that you asked?	<input type="checkbox"/>	<input type="checkbox"/>
Received enough information about the study for you to make a decision about your participation?	<input type="checkbox"/>	<input type="checkbox"/>
Do you understand:		

That you are free to stop taking part in the study at any time and without having to give a reason for withdrawing?

And free to withdraw your data prior to anonymisation which will take place 14 days after the completion of the questionnaire or telephone interview.

I understand that the interview part of this study will be recorded so that my responses can be typed up in order to be analysed. I understand that after my responses have been typed up, the recording will be permanently destroyed, and the transcription will be made anonymous 14 days after the interview.

I give permission for direct quotes that I provide to be used and reported in the research and I understand that all quotes will be kept anonymous and that I will not be identifiable.

I hereby fully and freely consent to my participation in this study.

I understand the nature and purpose of the procedures involved in this study. These have been communicated to me on the information sheet accompanying this form.

I understand and acknowledge that the investigation is designed to promote scientific knowledge and that the University of Bath will use the data that I provide for no purpose other than research.

I understand that the data I provide will be kept confidential and that on completion of the study my data will be anonymised by removing all links between my name or other identifying information and my study data. This will be done 14 days after the telephone interview and before any presentation or publication of my data.

I understand that the University of Bath may use the data collected for this project in a future research project but that the conditions on this form under which I have the provided will still apply.

Participant's Signature

Date:

Name in BLOCK capitals:

Demographics Questionnaire

Please answer the following questions about yourself. We are asking these to gain an understanding of the overall characteristics of the people who are taking part in this study.

What is your age?

- [Drop down list from 18 to 99] years old.

Which gender do you identify with most?

- Female
- Male
- Non-Binary
- Other
- Prefer not to say.

What is your ethnic group? (Please choose one option that best describes your ethnic group or background)

- Asian/ Asian British
- Black/ Black British, Caribbean, or African
- Mixed – White & Asian
- Mixed – White & Black African
- Mixed – White & Black Caribbean
- Other Mixed
- White British
- White Irish
- Other White
- Any Other (Please State)
- Prefer Not to Say

What is your relationship status?

- Married/ Civil Partnership
- Divorced/ Civil Partnership Dissolved
- Single (never married)
- In a Relationship
- Separated
- Widowed/ Surviving Civil Partner
- Cohabiting

- Other (please state)
- Prefer Not to Say

What is your accommodating/living arrangements?

- Living on my own
- Living with spouse/partner
- Living with parents
- Sharing a house/flat with others
- Living in supported accommodation
- Other (please state)
- Prefer not to say.

What is your current employment status?

- Unemployed
- Employed – full-time.
- Employed – part-time.
- Self-employed
- Full-time student
- Part-time student
- Homemaker
- Other (please specify)
- Prefer not to say.

What is the highest level of education that you have completed?

- No qualifications
- Highschool completed.
- A level or equivalent
- Higher education e.g., foundation degree or equivalent
- Undergraduate degree or equivalent
- Postgraduate degree or equivalent
- Other (please state)
- Prefer not to say.

Diagnostic Screening Questionnaires

The following questions will ask about your experience of OCD.

1. Do you have frequent unwanted thoughts or images that seem uncontrollable? Yes/ No
2. Do these thoughts or images cause you noticeable anxiety and distress? Yes/ No
3. Do you do anything to try and get rid of or ignore these thoughts or images? Yes/ No. If so, what do you do?
4. Do you experience another mental health or physical health difficulty that may better explain the unwanted thoughts or images? Yes/ No
5. Do you have any rituals or repetitive behaviours that take up more than one hour in total per day? Yes/ No
6. Do you have any rituals or repetitive behaviours that cause you distress, or have a negative impact on areas of your life that are important to you? For example, your work or social life? Yes/ No
7. Do you experience another mental health or physical health difficulty that may better explain any of your rituals or repetitive behaviours? Yes / No

GAD-7

Over the last 2 weeks, how often have you been bothered by the following problems? <i>(Use "✓" to indicate your answer"</i>	Not at all	Several days	More than half the days	Nearly every day
1. Feeling nervous, anxious or on edge	0	1	2	3
2. Not being able to stop or control worrying	0	1	2	3
3. Worrying too much about different things	0	1	2	3
4. Trouble relaxing	0	1	2	3
5. Being so restless that it is hard to sit still	0	1	2	3
6. Becoming easily annoyed or irritable	0	1	2	3
7. Feeling afraid as if something awful might happen	0	1	2	3

PHQ-9

Over the **last 2 weeks**, how often have you been bothered by any of the following problems?

(Use “✓” to indicate your answer”

	Not all	at Several days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things.....	0	1	2	3
2. Feeling down, depressed, or hopeless.....	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much.....	0	1	2	3
4. Feeling tired or having little energy.....	0	1	2	3
5. Poor appetite or overeating.....	0	1	2	3
6. Feeling bad about yourself — or that you are a failure or have let yourself or your family down.....	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television.....	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed? Or the opposite — being so fidgety or restless that you have been moving .around a lot more than usual.....	0	1	2	3
9. Thoughts that you would be better off dead or of hurting yourself in some way.....	0	1	2	3

OCI-R

The following statements refer to experiences that many people have in their everyday lives.

Please choose the number that best describes how much that experience has distressed or bothered you during the **past month**.

	0 Not at all	1 A little	2 Moderately	3 A lot	4 Extremely
1. I have saved up so many things that they get in the way.	0	1	2	3	4
2. I check things more often than necessary.	0	1	2	3	4
3. I get upset if objects are not arranged properly.	0	1	2	3	4
4. I feel compelled to count while I am doing things.	0	1	2	3	4
5. I find it difficult to touch an object when I know it has been touched by strangers or certain people.	0	1	2	3	4
6. I find it difficult to control my own thoughts.	0	1	2	3	4
7. I collect things I don't need.	0	1	2	3	4
8. I repeatedly check doors, windows, drawers, etc.	0	1	2	3	4
9. I get upset if others change the way I have arranged things.	0	1	2	3	4
10. I feel I have to repeat certain numbers.	0	1	2	3	4
11. I sometimes have to wash or clean myself simply because I feel contaminated.	0	1	2	3	4
12. I am upset by unpleasant thoughts that come into my mind against my will.	0	1	2	3	4
13. I avoid throwing things away because I am afraid I might need them later.	0	1	2	3	4
14. I repeatedly check gas and water taps and light switches after turning them off.	0	1	2	3	4
15. I need things to be arranged in a particular order.	0	1	2	3	4
16. I feel that there are good and bad numbers.	0	1	2	3	4
17. I wash my hands more often and longer than necessary.	0	1	2	3	4
18. I frequently get nasty thoughts and have difficulty in getting rid of them.	0	1	2	3	4

Loneliness Scale

The next questions are about how you feel about different aspects of your life. For each one, tell us how often you feel that way.

	Hardly ever	Some of the time	Often
How often do you feel that you lack companionship?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How often do you feel left out?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How often do you feel isolated from others?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Debrief Form

Debriefing Information (following questionnaire)

Thank you for taking part in this project which has been investigating people with OCD's experiences of the COVID-19 pandemic. Your contribution is very much appreciated.

Before you finish participating, we would like to invite you to take part in an exercise to help you transition out of the study and manage any difficult feelings it may have brought up. This is a 5-minute guided relaxation exercise and is completely optional. If you would like to take part, please click on the video below.

VIDEO LINK (script below)

If you would not like to do this, please skip to continue to read through your debrief form.

Guided Relaxation Exercise: Script of Video

“Take a deep breath and find a comfortable position, close your eyes if you would like or lower your gaze. Become aware of you breathing, notice the rise and fall of your breath, how it feels when you breathe in and as you breathe out.

You may find yourself getting distracted by thoughts or sounds, that's ok, just notice them and then let them pass by.

Imagine a place where you can feel calm, peaceful, and safe. It may be a place you've been to before, somewhere you've dreamt about going to, or maybe somewhere you've seen a picture of. Have a look around.... What do you notice? What do you see?

Focus on the colours in your peaceful safe place, what do you see? Now notice the sounds that are around you, or perhaps the silence. What can you smell? Then focus on any skin sensations - the earth beneath you, the temperature, any movement of air, anything else you can touch.

What are you doing? Now whilst you're in your peaceful and safe place, you might choose to give it a name, whether one word or a phrase that you can use to bring that image back, anytime you need to. You can choose to linger there a while, just enjoying the peacefulness and serenity. You can leave whenever you want to, just by opening your eyes and being aware of where you are now. Now, go back to noticing your breathing, breathing in, breathing out... And when you're ready, you may open your eyes."

Debrief Information

As this study has involved thinking about your personal experience of OCD we have listed below a list of services and organisations you can get in contact with should you wish to seek specific support regarding OCD and/or would like to speak someone about psychological distress more generally.

In the UK:

GP/ IAPT

Your first point of contact for getting support for OCD or psychological distress in general is your GP and/or your local Improving Access to Psychological Therapies (IAPT) team. IAPT services provide free psychological therapy.

You can find where your local IAPT service is through this website: [https://www.nhs.uk/Service-Search/Psychologicaltherapies-\(IAPT\)/LocationSearch/10008](https://www.nhs.uk/Service-Search/Psychologicaltherapies-(IAPT)/LocationSearch/10008)

Samaritans

If you have urgent concerns about your mental health, or are feeling suicidal, you can contact the Samaritans for support: 116 123, they are available to take calls, 24 hours a day, 7 days a week.

Or you can look at their website here: <https://www.samaritans.org/>

OCD Support services

OCD-UK: Website: <https://www.ocduk.org> Helpline: 0333 212 7890

OCD Action: Website: <https://www.ocdaction.org.uk> Helpline: 0845 390 6232

Thank you again for participating. If you would like to speak to us about the project, please get in touch.

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In the USA:

Your first point of contact for getting support with OCD and/or psychological distress in general would be your GP/physician/family doctor.

If participating in this study has led you to feeling distressed and/or you experience difficulties with psychological distress which leads you to feeling unsafe you can contact the National Suicide Prevention Lifeline they provide free and confidential support 24 hours a day seven days a week for people in suicidal crisis or distress. You can look at their website here:

<https://suicidepreventionlifeline.org/>.

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If you have participated in this study and are based in a different country to the ones listed above:

If participating in this study has led you to feeling distressed and/or you experience difficulties with psychological distress which leads you to feeling unsafe you can search to find a helpline number in your country via this link: <https://www.befrienders.org/>

Befrienders Worldwide is charity who provide an open space for those in distress to talk and be heard. This is via telephone helplines, SMS messaging, face to face and internet chat. The work across 32 different countries.

Thank you again for participating. If you would like to speak to us about the project, please get in touch.

My email is: OCD-COVID@bath.ac.uk

Catherine Wise and Josie Millar

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If you have any concerns related to your participation in this study please direct them to the Chair of the Department of Psychology Research Ethics Committee, email: psychology-ethics@bath.ac.uk.

Appendix M

Main Research Project – Author Guidelines for Social Science & Medicine

Scope of Journal

Social Science & Medicine provides an international and interdisciplinary forum for the dissemination of social science research on health. We publish original research articles (both empirical and theoretical), reviews, position papers and commentaries on health issues, to inform current research, policy, and practice in all areas of common interest to social scientists, health practitioners, and policy makers. The journal publishes material relevant to any aspect of health and healthcare from a wide range of social science disciplines (anthropology, economics, epidemiology, geography, policy, psychology, and sociology), and material relevant to the social sciences from any of the professions concerned with physical and mental health, health care, clinical practice, and health policy and the organization of healthcare. We encourage material which is of general interest to an international readership.

Use of Inclusive Language

Inclusive language acknowledges diversity, conveys respect to all people, is sensitive to differences, and promotes equal opportunities. Content should make no assumptions about the beliefs or commitments of any reader; contain nothing which might imply that one individual is superior to another on the grounds of age, gender, race, ethnicity, culture, sexual orientation, disability, or health condition; and use inclusive language throughout. Authors should ensure that writing is free from bias, stereotypes, slang, reference to dominant culture and/or cultural assumptions. We advise to seek gender neutrality by using plural nouns ("clinicians, patients/clients") as default/wherever possible to avoid using "he, she," or "he/she." We recommend avoiding the use of descriptors that refer to personal attributes such as age, gender, race, ethnicity, culture, sexual orientation, disability, or health condition unless they are relevant and valid. When coding terminology is used, we recommend avoiding offensive or exclusionary terms such as "master", "slave", "blacklist" and "whitelist". We suggest using alternatives that are more appropriate and (self-) explanatory such as "primary", "secondary", "blocklist" and "allowlist". These guidelines are meant as a point of reference to help identify appropriate language but are by no means exhaustive or definitive.

NEW SUBMISSIONS

Submission to this journal proceeds totally online and you will be guided stepwise through the creation and uploading of your files. The system automatically converts your files to a single PDF file, which is used in the peer-review process.

As part of the Your Paper Your Way service, you may choose to submit your manuscript as a single file to be used in the refereeing process. This can be a PDF file or a Word document, in any format or lay-out that can be used by referees to evaluate your manuscript. It should contain high enough quality figures for refereeing. If you prefer to do so, you may still provide all or some of the source files at the initial submission. Please note that individual figure files larger than 10 MB must be uploaded separately.

References

There are no strict requirements on reference formatting at submission. References can be in any style or format as long as the style is consistent. Where applicable, author(s) name(s), journal title/book title, chapter title/article title, year of publication, volume number/book chapter and the article number or pagination must be present. Use of DOI is highly encouraged. The reference style used by the journal will be applied to the accepted article by Elsevier at the proof stage. Note that missing data will be highlighted at proof stage for the author to correct.

Formatting Requirements

The journal requires that your manuscript is submitted with double spacing applied. There are no other strict formatting requirements, but all manuscripts must contain the essential elements needed to convey your manuscript, for example Abstract, Keywords, Introduction, Materials and Methods, Results, Conclusions, Artwork and Tables with Captions. If your article includes any Videos and/or other Supplementary material, this should be included in your initial submission for peer review purposes. Divide the article into clearly defined sections.

Peer review

All contributions will be initially assessed by the editor for suitability for the journal. Papers deemed suitable are then typically sent to a minimum of two independent expert reviewers to assess the scientific quality of the paper. The Editor is responsible for the final decision regarding acceptance or rejection of articles. The Editor's decision is final. Editors are not involved in decisions about papers which they have written themselves or have been written by family members or colleagues or which relate to products or services in which the editor has an interest. Any such submission is subject to all of the journal's usual procedures, with peer review handled independently of the relevant editor and their research groups. [More information on types of peer review.](#)

Essential title page information

- **Title.** Concise and informative. Titles are often used in information-retrieval systems. Avoid abbreviations and formulae where possible and make clear the article's aim and health relevance.
- **Author names and affiliations in the correct order.** Where the family name may be ambiguous (e.g., a double name), please indicate this clearly. Present the authors' affiliation addresses (where the actual work was done) below the names. Indicate all affiliations with a lower-case superscript letter immediately after the author's name and in front of the appropriate address. Provide the full postal address of each affiliation, including the country name and, if available, the e-mail address of each author.
- **Corresponding author.** Clearly indicate who will handle correspondence at all stages of refereeing and publication, also post-publication. **Ensure that an email address is provided and that contact details are kept up to date by the corresponding author.**
- **Present/permanent address.** If an author has moved since the work described in the article was done, or was visiting at the time, a 'Present address' (or 'Permanent address') may be indicated as a footnote to that author's name. The address at which the author actually did the work must be retained as the main, affiliation address. Superscript Arabic numerals are used for such footnotes.

Text

In the main body of the submitted manuscript this order should be followed: abstract, main text, references, appendix, figure captions, tables, and figures. Author details, keywords and acknowledgements are entered separately during the online submission process, as is the abstract, though this is to be included in the manuscript as well. During submission authors are asked to provide a word count; this is to include ALL text, including that in tables, figures, references etc.

Title

Please consider the title very carefully, as these are often used in information-retrieval systems. Please use a concise and informative title (avoiding abbreviations where possible). Make sure that the health or healthcare focus is clear.

Highlights

Highlights are mandatory for this journal as they help increase the discoverability of your article via search engines. They consist of a short collection of bullet points that capture the novel results of your research as well as new methods that were used during the study (if any). Please have a look at the examples here: [example Highlights](#). Highlights should be submitted in a

separate editable file in the online submission system. Please use 'Highlights' in the file name and include 3 to 5 bullet points (maximum 85 characters, including spaces, per bullet point).

Abstract

An abstract of up to 300 words must be included in the submitted manuscript. An abstract is often presented separately from the article, so it must be able to stand alone. It should state briefly and clearly the purpose and setting of the research, the principal findings and major conclusions, and the paper's contribution to knowledge. For empirical papers the country/countries/locations of the study should be clearly stated, as should the methods and nature of the sample, the dates, and a summary of the findings/conclusion. Please note that excessive statistical details should be avoided, abbreviations/acronyms used only if essential or firmly established, and that the abstract should not be structured into subsections. Any references cited in the abstract must be given in full at the end of the abstract.

Keywords

Up to 8 keywords are entered separately into the online editorial system during submission, and should accurately reflect the content of the article. Again abbreviations/acronyms should be used only if essential or firmly established. For empirical papers the country/countries/locations of the research should be included. The keywords will be used for indexing purposes.

Methods

Authors of empirical papers are expected to provide full details of the research methods used, including study location(s), sampling procedures, the date(s) when data were collected, research instruments, and techniques of data analysis. Systematic reviews and meta-analyses must be reported according to [PRISMA](#) guidelines.

Acknowledgements

Collate acknowledgements in a separate section at the end of the article before the references and do not, therefore, include them on the title page, as a footnote to the title or otherwise. List here those individuals who provided help during the research (e.g., providing language help, writing assistance or proof reading the article, etc.).

Formatting of funding sources

List funding sources in this standard way to facilitate compliance to funder's requirements: Funding: This work was supported by the National Institutes of Health [grant numbers xxxx, yyyy]; the Bill & Melinda Gates Foundation, Seattle, WA [grant number zzzz]; and the United States Institutes of Peace [grant number aaaa].

It is not necessary to include detailed descriptions on the program or type of grants and awards. When funding is from a block grant or other resources available to a university, college, or other research institution, submit the name of the institute or organization that provided the funding. If no funding has been provided for the research, it is recommended to include the following sentence: This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Footnotes

There should be no footnotes or endnotes in the manuscript.

Tables

Please submit tables as editable text and not as images. Tables can be placed either next to the relevant text in the article, or on separate page(s) at the end. Number tables consecutively in accordance with their appearance in the text and place any table notes below the table body. Be sparing in the use of tables and ensure that the data presented in them do not duplicate results described elsewhere in the article. Please avoid using vertical rules and shading in table cells.