Patients' perspectives of online group CBT therapy for people with bipolar disorder- a qualitative analysis.

by

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A thesis submitted to the University of Birmingham in part completion of the degree of DOCTOR OF CLINICAL PSYCHOLOGY

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19th May 2024

Thesis overview

The first chapter of this thesis is a meta-analysis exploring the all-cause and cause-specific excess mortality rates in bipolar disorder (BD). The second chapter reports on a reflexive thematic analysis (RTA), which reports participants with bipolar disorders' perceptions and experiences of using online CBT group therapy. The meta-analysis is an updated analysis replicating a previous paper exploring mortality rates among BD in 2015. The current meta-analysis included papers that reported mortality rates in BD since the publication of the previous meta-analysis (n=10). The findings suggest a slightly higher all-cause excess mortality rate among those with BD compared to the general population than the previous meta-analysis. These findings indicate a need for specific, targeted policies and specialist interventions to support people with BD and work towards reducing mortality rates.

The second chapter, which focuses on people's experience and perception of online group therapy, included interviews with 13 participants, which were analysed using the RTA method. Themes generated from the analysis suggest that connections and a sense of community can develop among people with BD using an online platform; online groups are inclusive and increase the sense of empowerment and control. The findings from the qualitative analysis suggest the need for innovative, digital group therapy to address known challenges, such as in accessing interventions, increasing people’s sense of community, and ensuring that service users can make decisions alongside clinicians and have an active role in their course of treatment.

Dedication

I would like to express my heartfelt gratitude to my parents, Mr and Mrs Laxhman, as I dedicate my thesis to them. Words can never do justice to how much I appreciate both of you. You have been the source of my inspiration, courage, and comfort throughout this journey. I can never thank you enough for your unwavering belief in me and your commitment to creating the opportunities you never had for me. I feel truly blessed and honoured to have you both as my parents.

Acknowledgements

I would like to express my gratitude to all those who participated in this research. It was an honour to meet all of you through this process, and I appreciate your open and honest reflections and the experiences you shared. Your valued input was integral to the success of this project.

I would like to extend my special thanks to my research supervisors, Dr. Andrew Fox and Dr. Elizabeth Newton. Andy, thank you for your guidance, patience, and pep talks! Your knowledge, kindness, gentle encouragement, and support were invaluable throughout this process. Lizzie, I cannot thank you enough for your time, support, belief in me and motivation. Your passion, expert knowledge and enthusiasm have been truly inspiring.

My appreciation and gratitude also go to my family, who stood by me, gave me courage, and believed in me throughout these 3 years. You continuously surrounded me with love, prayer, and faith that I would succeed. I'd also like to thank the wonderful new friends I have made on this course. You made this journey memorable and were my beacon of strength through all the highs and lows throughout this training. I am truly blessed to have met you all.

Lastly, I'd like to thank my partner, Paul. Thank you for being there for me throughout this journey. You've been my rock throughout this process, and your unfaltering love, support and "you can do it" attitude helped me develop perseverance in accomplishing this goal.

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1. Introduction

Bipolar disorder (BD) is classified as one of the leading causes of disabilities worldwide (Whiteford et al., 2015). Bipolar disorder is a complex and challenging disorder that is often characterised by fluctuations in mood, which includes manic high and depressive low episodes (Oud et al., 2016). Bipolar disorder affects approximately 1% of the population (Alonso et al., 2011). It is known to negatively impact an individual's quality of life and functioning, particularly in relationships, finance, and physical health (Michalak et al., 2006). This impact has also been shown to extend to the patient's family and the wider society, often leading to carer burnout and reduced quality of life (Ishak et al., 2012).

Approximately 73% of individuals relapse within five years of an episode, and two-thirds of people experience multiple relapses (Sajatovic, 2005). Relapses are associated with an increased risk of suicide, higher hospitalisation rates and poorer psychosocial functioning (Belete et al., 2020). BD is often misdiagnosed due to the overlap of symptoms with other disorders, such as major depressive disorder (Singh & Rajput, 2005). A delay in receiving an accurate diagnosis may lead to complications, such as difficulty accessing appropriate treatment, increasing the severity of episodes and relapses (Bowden, 2005). A delay in starting pharmacological treatment is associated with an increase in healthcare costs, which includes higher hospitalisation rates due to increased suicide attempts (Shi et al., 2004).

The lifetime risk of attempted suicide for those with BD is between 25-50% (Jamison, 1997), compared to 15% in patients diagnosed with unipolar depression (American Psychiatric Association, 2013). The rate of suicidal attempts and death is twice that of those diagnosed with major depression (Valtonen et al., 2005) and higher than most other psychiatric diagnoses,

such as depression, anxiety, and ADHD disorders (Yeh et al., 2019). Findings have reported a similar all-cause mortality rate among those with schizophrenia to those with BD (Scorza et al., 2009); however, schizophrenia has received the most attention for research (Dickerson et al., 2021) compared to bipolar disorder. Numerous reports have called for policy change following increasing mortality rates in schizophrenia (Scorza et al., 2021); however, to knowledge, no reports have highlighted the need for policy and healthcare changes for people with BD, despite the high premature mortality rate in this group.

BD is associated with an increased premature mortality rate (Biazus et al., 2023), with an estimated 15 years of life lost compared to the general population (Laursen, 2011). Studies have found that premature deaths are linked to natural causes, which account for 74-80% of deaths observed in BD within the adult population (Kessing et al., 2015). These natural causes include cardiovascular diseases (Angst et al., 2002; Ösby et al., 2001), cancer (Chan et al., 2021), and circulatory and respiratory diseases (Hoang et al., 2011). Factors such as unhealthy lifestyles that include poor sleep and diet (Huang et al., 2018), tobacco use (Berk et al., 2008) and poor healthcare outcomes and comorbidity (Sylvia et al., 2015) may contribute to an elevated risk of death due to natural causes. Despite natural causes being the largest attribute of premature deaths in BD, death by unnatural causes is also prominent within the BD population (Staudt Hansen et al., 2019). Death by unnatural causes may include suicides, homicides, accidents and alcohol and drug use (Wilson et al., 2019).

Mortality rates provide a foundation for healthcare organisations, governments, and policymakers to improve the quality of care (Kindig & Stoddart, 2003). More recently, mortality rate data has been used to assess healthcare systems and whether premature deaths could have been avoided by timely and appropriate interventions (Nolte & McKee, 2003). Researchers can gather data highlighting mortality rates to alert organisations of the impact of current policies and suggest alternative recommendations to address rising mortality rates

within a specific group, i.e., areas to increase funding, increasing access and ways to reduce inequalities (Patel et al., 2018).

1.1. Natural causes of mortality in bipolar disorder

Individuals with severe mental disorders have a higher prevalence of risk factors, which include hypertension, obesity, and smoking, which all contribute to an elevated risk of cardiovascular diseases (CVD) and related disorders (Dickerson et al., 2021). Individuals with BD are ten times more likely to die of cardiovascular diseases compared to the general population (Westman et al., 2013, Rossom et al., 2022). More specifically, it has been reported that people with BD were twice as likely to die of cerebrovascular and heart disease as well as myocardial infarction (Westman et al., 2013). However, despite the increased likelihood of mortality attributed to CVD, the hospital admission rates were lower than that of the general population with a CVD diagnosis without BD (Westman et al., 2013). These findings suggest that individuals with BD may not be seeking medical care related to their physical health needs, increasing their likelihood of ongoing physical health complications and poorer healthcare leading to death. This was also reflected in findings from a recent large-scale study conducted in the UK, which found that individuals with BD had higher COVID-19 mortality rates compared to those hospitalised with COVID-19 without a severe mental illness (SMI) and major depressive disorder (MDD) (Hassan et al., 2022).

Together, the literature highlights the physical health disparities in those with BD both in comparison to other mental disorders and the general population. BD can impact functioning both during or after an episode, such as reduced work productivity, poor quality of life and dysfunctional relationships with others (Goldberg et al., 1995). This can make individuals more

vulnerable to poverty, lower socioeconomic status, and poorer lifestyles, all of which are associated with a higher risk of natural mortality (Druss et al., 2018).

Antipsychotics are considered the first-line treatment for those diagnosed with bipolar disorder (Reynolds, 2011). However, the impact of antipsychotics on mortality remains unclear (Correll et al., 2015). A large-scale study including over 40,000 participants explored the association between psychotropic medication and mortality in bipolar disorder. They reported that compared to controls, those prescribed anti-psychotics had dose-dependent increased mortality rates, particularly due to CVD (Lin et al., 2023).

Despite natural causes being the largest attribute of excess mortality, death by unnatural causes is also prominent within the BD population (Staudt Hansen et al., 2019).

1.2. Unnatural causes of mortality in bipolar disorder

Unnatural causes of death include suicide, homicide, and accidents (Hayes et al., 2015).

The risk of suicide is approximately 20% higher than the general population and has one of the highest suicide rates compared to other mental disorders (Khalsa et al., 2008).

On average, up to 19% of people with a diagnosis of BD end their life by suicide (Pompili et al., 2009), and death by suicide within the BD population accounts for 3-14% of suicidal deaths worldwide (Schaffer et al., 2015). The death rate from suicide is twice as high in people with BD compared to those diagnosed with a depressive disorder (Valtonen et al., 2005). Approximately 50% of people with BD attempt suicide, of whom 15-20% die by suicide (Gonda et al., 2012). Those with BD are also more likely to die by suicide by using more lethal methods compared to the general population (Simon et al., 2007).

A large-scale study with over 100,000 participants found that both males and females with a BD diagnosis had the highest risk of death by suicide compared to other disorders, including

unipolar depression and schizophrenia (Nordentoft et al., 2011). More recently, studies have explored suicide rates with larger populations and a longer follow-up period, allowing for more robust conclusions to be made.

In a large population study of over 5,000 patients, it was reported that those with BD were up to 4 times more likely to die of accidental death, such as falls or poisoning, compared to the general population (Crump et al., 2013); however, it was found that more people died from accidental death than suicide. Research has indicated that most accidental deaths, such as violent behaviours and alcohol abuse-related mortality, are associated with manic or psychotic mood states, as well as with the increased use of psychotropic medication (Khalsa et al., 2008).

1.3. Meta-analyses exploring excess mortality rates in bipolar disorder

At the time of the review, three reviews have explored excess mortality rates among people diagnosed with BD. The earliest review exploring mortality across mental disorders (Harris & Barraclough, 1998) reported that mortality by unnatural causes, specifically suicide, was 11 times more likely than that in the general population. A review by (Roshanaei-Moghaddam & Katon, 2009) reported a 2.5 times higher prevalence of mortality within the BD population from cardiovascular disease compared to the general population. A more recent review by Hayes et al., (2015) found elevated mortality rates among people with BD, with approximately double the all-cause excess mortality rate compared to the general population. Their analysis also revealed that this was true for specific causes of mortality, i.e., both natural and unnatural, reporting a mortality rate that was 7.4 times higher for unnatural causes and 1.6 times higher for natural causes of death than the general population.

However, the above reviews have several limitations. Only a small number of studies were included in the earliest review (N=6), and the authors only searched one database for papers

(MEDLINE; Harris & Barraclough, 1998). The review by Roshanaei-Moghaddam & Katon, (2009) also searched one database (MEDLINE), limiting the scope of papers that could have been included from other databases. This review also included all studies that involved participants with a 'bipolar spectrum disorder'. Therefore, participants with a diagnosis of schizoaffective disorder and affective disorder were also included. As a result, findings from this review cannot be used to understand excess mortality solely within BD as these results may be skewed by mortality rates across other diagnoses (Roshanaei-Moghaddam & Katon, 2009).

In the most recent meta-analysis, a quality check and risk of bias were not assessed for the included studies (Hayes et al., 2015). This review only included studies from global western populations and one from a global eastern population (Hayes et al., 2015). Since the publication of this meta-analysis, several new studies have been published, including data from both global western and eastern populations, allowing for a global and more representative understanding of excess mortality rates among this group. Therefore, the current review will focus on exploring all-cause and cause-specific excess mortality among those with a diagnosis of bipolar disorder. Additionally, where reported, this meta-analysis will also compare the risk of mortality of bipolar disorder to other psychiatric disorders. Excess mortality is defined as the additional number of deaths in a condition compared to a group without the condition (Checchi & Roberts, 2005). As the original meta-analysis exploring mortality rates among those with bipolar disorder was published nine years ago and given the length of time and the fact that ten papers have been published since 2015, a decision was made to explore whether the original conclusions of the previous meta-analysis hold in the face of new data. Therefore, the objective was to understand whether the mortality rate among those with bipolar disorder had changed in recent years. An analysis will explore whether a statistically significant difference is found between the mortality rates reported

across both papers. This will give a greater understanding of whether mortality rates amongst those with BD have changed over the years. Despite some shortcomings from the earlier meta-analysis, a decision was made to focus on the latest 10 papers published since 2014 to see whether the original papers' conclusions remain the same or whether mortality rates have changed. Further, unlike the papers included in the previous meta-analysis, the majority of the new papers did not report standardised mortality rates for individual causes of death, such as suicide or cancer, or disclose demographic information, such as death among specific gender groups, thus making it difficult to combine findings. For these reasons, a decision was made to look at overall mortality rates and the mortality rates for natural and unnatural causes of death, which was reported in the current paper.

2. Methods

2.1. Identifying primary studies

Search of Electronic Databases

A systematic literature search was initially carried out on June 30th, 2023, using Medline, PsycINFO, and Embase databases. The purpose of the search was to acquire a broad overview of the literature on mortality rates in bipolar disorder. All databases were searched from their launch to June 30th, 2023. The search terms that were used to identify relevant studies are outlined in Table 1 below. A full list of search terms is in Appendix A. The Prisma, 2020 guidelines were followed to ensure rigour and quality in completing and reporting this meta-analysis (Page et al., 2021) (appendix B).

Table 1.

Search Criteria

Construct	Free Text Search Terms	Method of Search	Limits
Bipolar disorder	"Bipolar disorder" "Bipolar illness*" "Manic depression" "Bipolar affective disorder"	Free search terms All search terms combined with *OR/AND*	Peer reviewed articles 1946-June 2023
Death	"Life expectancy" "Mortality rate" Mortality" "Sudden death" "Accidental death" "Death" "Dying". "Suicide" "Natural death" "Unnatural death"	Free search terms All search terms combined with *OR/AND*	English language

2.2. Inclusion and exclusion criteria

The full inclusion and exclusion criteria are described in Table 2 below. Studies were included if they were 1) published in 2014 or later as this meta-analysis is an update of a previous meta-analysis published in 2015, 2) participants were diagnosed with bipolar disorder (Type 1 or 2), 3) standardised mortality rates were reported, can be calculated, or authors were able to share SMR data, 4) Studies primary outcome was to explore the mortality rates amongst those with bipolar disorder.

Table 2.

Inclusion and exclusion criteria

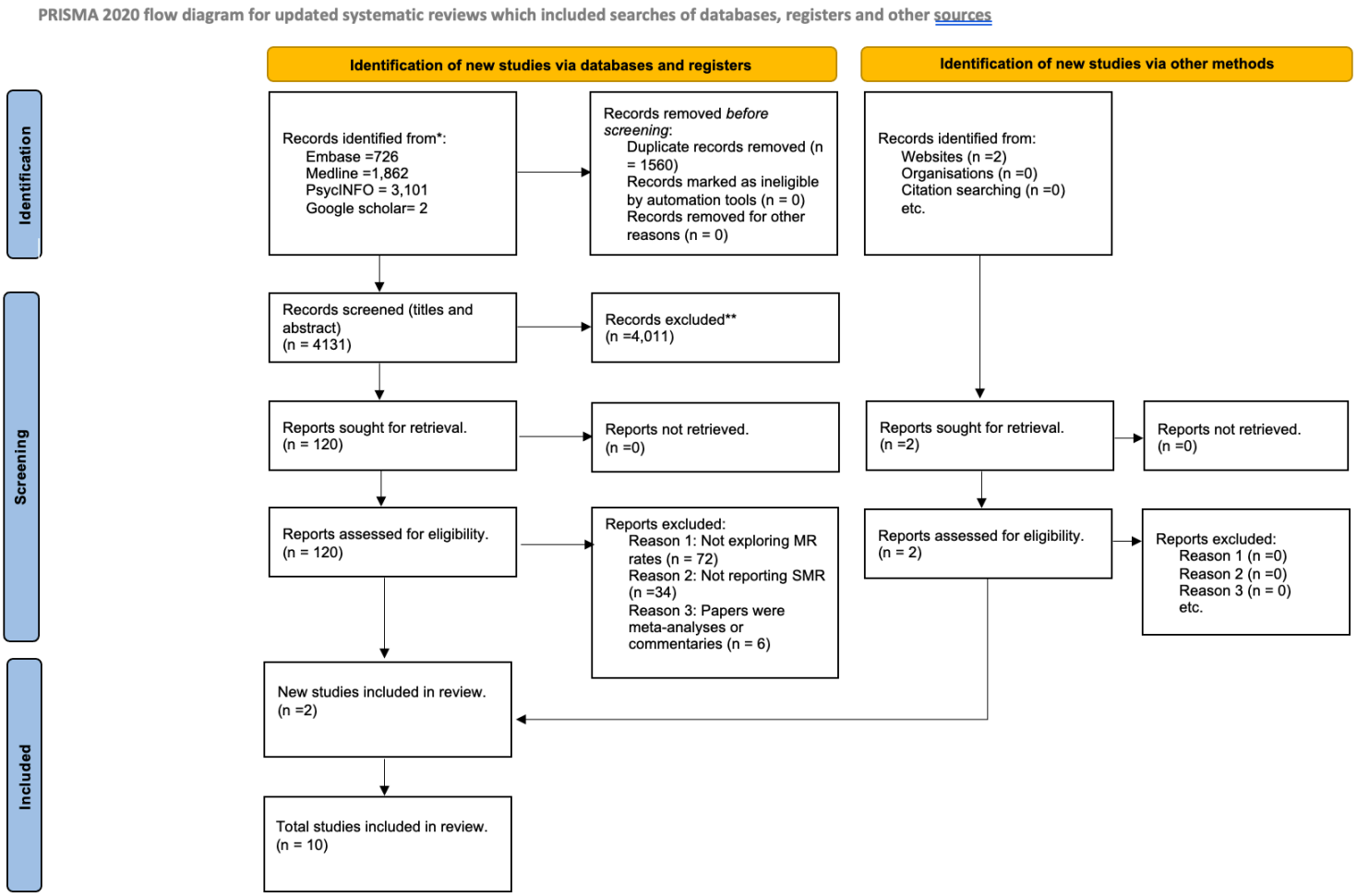
Inclusion criteria	Justification
Studies were published from 2014 onwards.	As this meta-analysis is aiming to explore mortality rates in bipolar disorder from the last meta-analysis that was published in 2015 (the paper finished searches in early 2014), papers published after this date were included.
Studies reported the number of participants with BD and the deaths of people diagnosed with bipolar disorder.	As this meta-analysis is exploring mortality rates in BD, it was important that papers clearly disclosed the total number of participants within the study and the death rates.
Bipolar disorder was diagnosed using any criteria (ICD, DSM).	This allowed studies from different countries to be included as classification systems differ across regions. This also removes other similar cohorts from the analysis, i.e., affective disorders.
Data that included all-cause or cause-specific mortality was measured and reported in the paper. This included and were not limited to natural/unnatural deaths, suicide, infection, respiratory and circulatory diseases.	This allows for all causes of death to be included and sub-analyses to be carried out in the meta-analysis.
Studies that reported data on either standardized mortality rates (SMR) were standardized by age or observed and expected death rates were disclosed.	Observed and expected death rates allows for SMR to be calculated. Standardized mortality rates have lower variances compared to non-standardized rates, allowing for more precise estimates when comparing to the general population (Taylor, 2013).
Exclusion criteria	**Justification**
If the study focuses on a sub-population (prison population).	This is to ensure that the results are generalisable and to avoid bias as death rates may be higher in prison settings. Findings have reported higher suicide rates within the prison population compared to the general population, which could skew data (Fazel et al., 2017).

Papers were excluded if they were: meta-analysis reviews/commentaries/ clinical guidance/non-outcome focused studies i.e. longitudinal/association studies/case studies/validation of psychometric scales or qualitative papers.	These articles do not provide the outcome data needed for this meta-analysis.
Participants are at least 16 years of age.	The previous meta-analysis included papers where participants were 16> years old, therefore this paper will replicate the age limits to reduce variation.

The results of the systematic search are presented in Figure 1. The search generated a total of 5691 papers. A total of 1560 duplicate papers were removed, leaving a total of 4131 papers to screen. The article's titles and abstracts were then screened using the exclusion criteria. The three most common reasons for exclusion were not exploring mortality rates in bipolar disorder (n=2,923), not reporting death by using standardized mortality rates (n=962), and articles were meta-analyses or commentaries (n=126). The full text of the remaining 120 articles was reviewed against the exclusion criteria. Eight articles met the full inclusion/exclusion criteria. Two additional articles were identified from searching Google Scholar that were not included in the database search. Thus, a total of 10 studies satisfied the criteria for inclusion within this meta-analysis. The reasons for excluding the remaining 112 papers can be found in Figure 1

Figure 1.

Prisma flow chart of included studies (Page et al, 2021)



2.3. Data extraction

All data was extracted by the corresponding author (NL). For 20% (two papers), the risk of bias and data extraction were checked for reliability. A second-rater examined the two studies. Any inconsistencies in ratings were discussed, and the agreed guideline for rating and extraction was applied to the remaining studies.

Table 3.

Studies included in the meta-analysis.

Author (year)	Country	Total N	M, Total	F, Total	Mortality type	Standardised by	Settings
Fekadu et al (2015)	Ethiopia	346	192	153	All cause	Age	Nationwide
Osby et al (2016)	Sweden	37474	17156	20318	Cardiovascular	Age	Nationwide
Medici et al (2015)	Denmark	15344	9132	6202	All cause	Age	Psychiatric inpatients
Chan et al (2021)	Hong Kong	12556	4928	7628	Suicide	Age	Nationwide
					Cancer		
					All cause		
Song et al (2020)	Korea	3287	1392	1895	Suicide	Age	Nationwide
Chen et al (2020)	Taiwan	46490	23321	23169	Cardiovascular	Age	Nationwide
Callaghan et al (2014)	USA	76098	30978	45120	Cardiovascular	Age	Nationwide
Girardi et al (2021)	Italy	1950	N/A	N/A	Suicide	Age	Nationwide
Barros et al (2022)	UK	707	N/A	N/A	All cause	Age	Nationwide

Paljärvi et al (2023)	Finland	47018	N/A	N/A	All cause Suicide Cardiovascular Alcohol	Age	Nationwide

Note: Multiple causes of death are reported for two studies as they reported individual SMRs for causes of death, which were used in the analysis comparing natural and unnatural causes of death. All-cause SMRs were used to explore overall SMRs across studies.

2.4. Relative risk reported as standardised mortality rates.

Standardised mortality rates can be compared to the relative risk coefficient, which describes whether a specific population (those with a BD diagnosis) is less/more/equally likely to die as the reference population (general population) (Taylor, 2013). An SMR of <1 suggests fewer deaths than the general population, and an SMR of >1 suggests excess deaths than the general population (Taylor, 2013).

The SMRs reported in the studies included in this meta-analysis were all standardised by age. None of the included studies that reported SMR also reported the sample size for the general population comparator group nor the standard error of the SMR rate. Without the sample size for the general population comparator group or the standard error of the SMR rate, it is not possible to calculate the precision of the SMR effect. Therefore, the following equation was used to calculate the standard error. Given a reported SMR = 2.6 excess deaths in the bipolar group, the number of deaths in the age-matched general population can be estimated as (1/2.6) *(number of deaths in BD group) for a sample size equivalent to that of the bipolar group. The standard error of the SMR can then be calculated from these estimates of the death rate in the general population in a sample size equivalent to that reported for the bipolar group (i.e., the larger the bipolar group, the larger the overall precision of the estimate of the standardised mortality rate).

2.5. Risk ratios of different disorder comparison groups

Mortality ratios were reported as the number of participants with a specific disorder (BD, schizophrenia, depression) and the number of those who died with the condition, which is expressed as risk ratios (Dettori et al., 2021). Risk ratios of depression and schizophrenia will then be compared to BD to explore differences in risk of death between conditions. These sub-group analyses occurred where data was available across studies. In total, four studies included data on mortality and depression and six on mortality within schizophrenia.

2.6. Defining problematic variance

A study-level effect is considered heterogeneous if it is considerably different from the meta-analytic average and cannot be explained by the range in the distribution of the effect within the population (Higgins & Thompson, 2002). Variation among methods, error of measurement and poorly controlled variables can all contribute to heterogeneity. Higgins I^2 measures the level of heterogeneity, whereby higher I^2 reflects variation that cannot be explained by true variants in the dispersal of effect within the population (Higgins et al., 2003). If variations within the methodologies of the primary studies are detected, including high levels of heterogeneity, this would be expressed as a Higgins I^2 value greater than 75% (Higgins et al., 2003). If undesirable levels of heterogeneity are flagged, then subsequent analysis will focus on examining the possible causes of heterogeneity in variations of effect in SMR in the primary studies.

2.7. Risk of Bias Assessment

The risk of bias was assessed using a quality criterion informed by the published risk of bias frameworks, such as The Cochrane Collaboration Risk of Bias Tool (Higgins et al., 2011) and the Risk of Bias Assessment Tool for Nonrandomised Studies (Kim et al., 2013). This meta-analysis's risk of bias framework assessed risk across selection, detection, statistical, reporting bias, and generalisability, as these factors were relevant for the types of studies included in this meta-analysis. The irrelevant factors, such as treatment fidelity, were omitted.

Table 4 rationalises the risk of bias across these domains and the criteria for Low, Unclear, and High risk.

Table 4.

Domains and criteria of risk of bias and the criteria for ratings of low, unclear, or high-risk

Domain	Details	Risk of Bias
Selection Bias	Did cohorts receive any interventions during their follow-up periods? Were cohorts fairly included in the study? e.g., were some groups excluded without reason?	High Risk- Characteristics of the cohorts are not reported, lack of clarity or discloser on how cohorts were included in the study, participants were offered interventions during the follow-up period. Unclear Risk- Data collection reporting is unclear, important cohort characteristics are missing, e.g., setting. Low Risk- Cohorts did not receive interventions, recruitment method is clearly defined and reported, study clearly describes data collection e.g., retrospective data from registers, follow-up periods and settings.
Detection Bias	Are the death rates reported and in the same way for all cohorts, e.g., bipolar disorder and the general population?	High Risk – Death rate is not reported per cohort. Unclear Risk- Death rate is unclear. Low Risk- The number of deaths were clearly reported in the studies. Number of deaths were expressed as raw numbers.
Statistical Bias	Have appropriate statistical methods been used? Are standardised mortality rates reported?	High Risk- Standardised mortality rates were not reported or could not be calculated. Unclear Risk – Confidence intervals or exact p-values for effect estimates were not reported and could not be calculated. Low Risk – Appropriate statistical methods used. The study reported a SMR value per cohort/cause of death. Confidence intervals were reported.

Domain	Details	Risk of Bias
Reporting Bias	Is there indication of selective outcome reporting? Are only the significant results reported?	High Risk – Has not clearly reported the SMR's for cohorts/ and or only reported a subsample. Unclear Risk – Not all descriptive and/or summary statistics are presented. Low Risk – Reported all results, regardless of outcome.
Generalisation	Can the findings be applied to settings other than that in which they were collected? Are there any major differences between the study participants and the general population?	High Risk- The study included participants from one setting, e.g., one in-patient service, not nationwide). Unclear Risk- The study includes a participant from a specific setting type but has an adequate sample size. Low Risk- Sufficient sample for generalisation and representative of target population (>50 per cohort). The sample size is adequate to detect an effect. The study participants were included from more than one site (multiple in-patient sites, nationwide) registers. Standardised by one characteristic, e.g., age, sex.

Figure 2 below shows the application of the risk of bias criteria to the ten included studies. Each domain of risk of bias is attributed to a score proportional to the observed risk (with low risk receiving two points, unclear risk receiving one point, and high risk receiving no points). The overall quality index is the sum of the five risks of bias criteria, which is expressed as a percentage of the total possible score.

Figure 2.

Ratings of risk of bias. Red marks high risk of bias, amber marks an unclear risk of bias and green is a low risk of bias.

Study Name	Study Design	Selection Bias	Performance Bias	Treatment Bias	Detection Bias	Statistical Bias	Reporting Bias	Generalisability	Overall.Quality.Index
Fekadu et al 2015	Prospective case cohort study	Low risk	Not Applicable	Not Applicable	Low risk	Low risk	Low risk	Low risk	100%
Osby et al 2016	Prospective case cohort study	Low risk	Not Applicable	Not Applicable	Unclear risk	High risk	High risk	Low risk	83%
Medici et al 2015	Prospective case cohort study	Low risk	Not Applicable	Not Applicable	Low risk	Low risk	Low risk	Unclear risk	98%
Chang et al 2021	Prospective case cohort study	Low risk	Not Applicable	Not Applicable	Low risk	Low risk	Low risk	Low risk	100%
Song et al 2020	Prospective case cohort study	Low risk	Not Applicable	Not Applicable	Low risk	Low risk	Low risk	Low risk	100%
Chen et al 2020	Prospective case cohort study	Low risk	Not Applicable	Not Applicable	Low risk	Low risk	Unclear risk	Low risk	98%
Callaghan et al 2014	Prospective case cohort study	Unclear risk	Not Applicable	Not Applicable	Low risk	Unclear risk	Unclear risk	Low risk	93%
Girardi et al 2021	Prospective case cohort study	Unclear risk	Not Applicable	Not Applicable	Low risk	Low risk	Low risk	Low risk	98%
Barros et al 2022	Prospective case cohort study	Unclear risk	Not Applicable	Not Applicable	Unclear risk	Low risk	Low risk	Low risk	95%
Paljärvi et al 2023	Prospective case cohort study	Low risk	Not Applicable	Not Applicable	Low risk	Unclear risk	Low risk	Low risk	98%

2.8. Selection Bias

Overall, there was a low risk of selection bias within the studies. Seven studies were rated as low risk, and three were rated as unclear risk. The low-risk studies reported how they collected data, time points, and from which settings (Chan et al., 2021; Chen et al., 2020; Fekadu et al., 2015; Medici et al., 2015; Ösby et al., 2016; Paljärvi et al., 2023; Song et al., 2020). The studies rated as unclear (Barros et al., 2023; Callaghan et al., 2014; Girardi et al., 2022) were vague about their participant selection methods and stratification, but overall, they appeared to use data from hospital/government registers.

2.9. Detection Bias

Generally, there was a low risk of detection bias. Eight studies were marked as low risk, and two studies were marked as having an unclear risk of bias. The studies with a low risk of bias (Callaghan et al., 2014; Chan et al., 2021; Chen et al., 2020; Fekadu et al., 2015; Girardi et al., 2022; Medici et al., 2015; Paljärvi et al., 2023; Song et al., 2020) reported the number of people who died in each cohort. The unclear risk of bias was due to a lack of reporting of actual death rates in cohorts (Barros et al., 2023; Ösby et al., 2016).

2.10. Statistical Bias

Seven studies rated a low risk of bias, one with high risk and two with unclear risk. Seven studies clearly reported their SMR for cohorts and reported confidence intervals and p values (Boschesi Barros et al., 2023; Chan et al., 2021; Chen et al., 2020; Fekadu et al., 2015; Girardi et al., 2022; Medici et al., 2015; Song et al., 2020), whereas one did not report SMR or confidence intervals (Ösby et al., 2016) (this was retrieved after contacting the author). Unclear risk bias studies were vague in reporting findings, often without confidence intervals and p-values (Callaghan et al., 2014; Paljärvi et al., 2023).

2.11. Reporting Bias

Seven studies were considered low risk of bias, one high risk, and two unclear risk. The low-risk studies reported all data and included participant characteristics (Boschesi Barros et al., 2023; Chan et al., 2021; Fekadu et al., 2015; Girardi et al., 2022; Medici et al., 2015; Paljärvi et al., 2023; Song et al., 2020). The one high-risk study failed to report SMRs and raw numbers of death within cohorts (the authors were contacted for data) (Ösby et al., 2016). The unclear

risk of bias studies did not include full descriptive information or report data in graph form (Callaghan et al., 2014; Chen et al., 2020).

2.12. Generalisability

Most of the studies were deemed low risk except one that was unclear. Nine studies had large cohort sizes and included participants from a range of settings, such as nationwide hospitals (not restricted to inpatient, but any hospital admission) or both inpatient and outpatient services (Boschesi Barros et al., 2023; Callaghan et al., 2014; Chan et al., 2021; Chen et al., 2020; Fekadu et al., 2015; Girardi et al., 2022; Ösby et al., 2016; Paljärvi et al., 2023; Song et al., 2020). One study (Medici et al., 2015) only included data from nationwide psychiatric in-patient settings; however, it did have a large cohort size.

2.13. Summary

Overall, most of the studies posed low risk across the risk of five bias criteria. Only one study was rated as high risk for both statistical and reporting bias. Despite some variation, all studies yielded a high overall quality index score and were included in this meta-analysis.

3. Analysis and Results

Table 5 reports the all-cause standardised mortality rates described in the primary studies. Ten studies reported a total of 241,27 participants. All participants were selected from medical/government registers from in-patient and/or community settings and compared to the general population. Participants' ages ranged from 16 to 70. Bipolar disorder types 1 and 2 were classified using ICD manuals.

Table 5.

Standardised mortality rates relative to the general population (SMR)

Study	SMR	Effect (Log SMR)	Log Std.Er	CI Lower	CI_Upper	Weight in random effects model
Fekadu et al 2015	1.5	0.4055	0.26453	0.11	0.9239	1.557
Osby et al 2016	2.6	0.955	5 0.0178	0.92	0.99	1.746
Medici et al 2015	1.7	0.5306	0.0305	0.47	0.5904	1.744
Chang et al 2021	2.6	0.9555	0.05741	0.84	1.068	1.737
Song et al 2020	10.26	2.3283	0.40618	1.53	3.1243	1.356
Chen et al 2020	4.2	1.4351	0.10532	1.22	1.6415	1.714
Callaghan et al 2014	1.5	0.4055	0.01705	0.37	0.4389	1.746
Girardi et al 2021	3.97	1.3788	0.42784	0.54	2.2173	1.324
Barros et al 2022	20.6	3.0493	0.38144	2.30	3.7969	1.393
Paljärvi et al 2023	2.76	1.0152	0.03312	0.95	1.0801	1.744

3.1. Selection of the meta-analytic model

The most common meta-analysis methods are the fixed and random effects models. The fixed effects model considers that the true effect size is the same for all included studies, with any differences in effect sizes due to sampling error (Nikolakopoulou et al., 2014). In contrast, the random effects model assumes that the true effect size can differ across studies and that variation in effect sizes may also reflect other uncontrolled differences between studies (for example, methodological variation, differing participant characteristics, and different measures used to assess the effect (Zhai & Guyatt, 2024). Accordingly, the random effects model is usually preferred when examining literature using diverse methodological procedures, where participant characteristics may influence the effect size being estimated (Deeks et al., 2019). Figure 3 below shows the distribution of the SMR's of the primary studies (10). The Restricted maximum likelihood estimator (REML) model was used to calculate the between-studies variance (tau^2) in the random effects model shown below.

Figure 3.

QQ plot of the distribution of standard mortality rates within the primary studies.

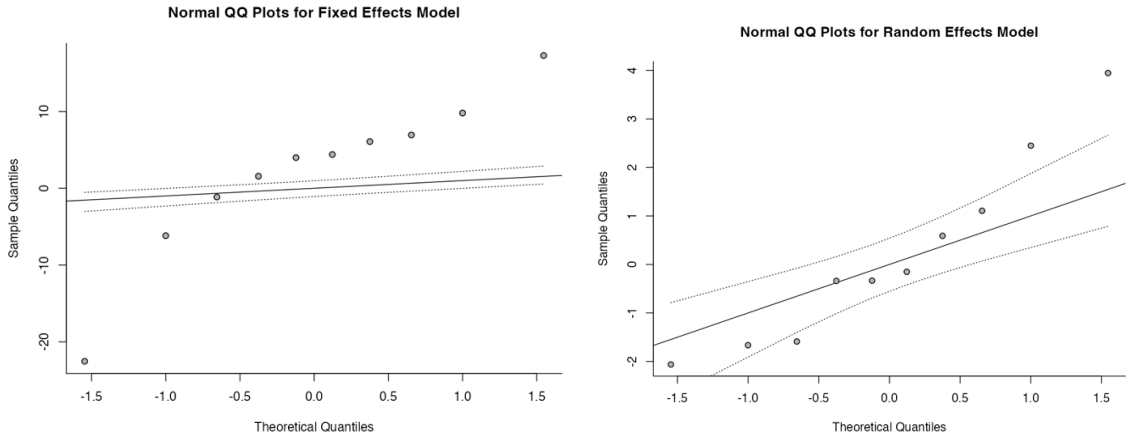


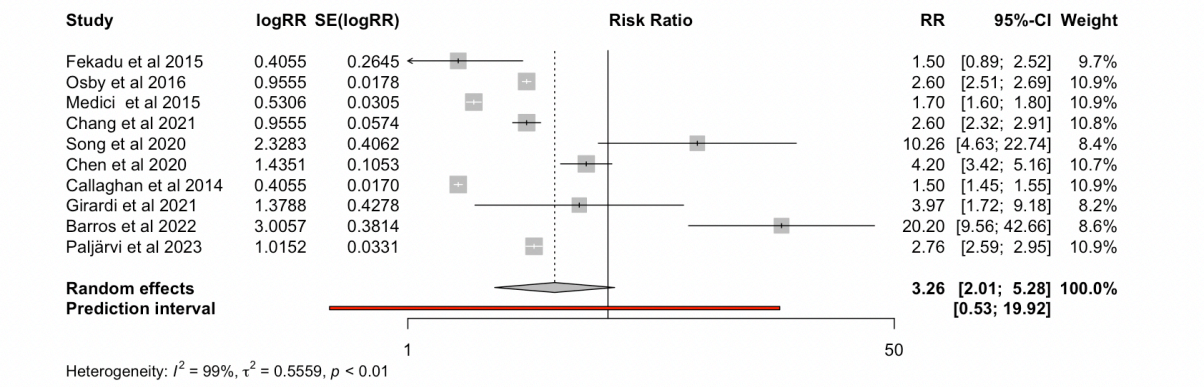
Figure 3 highlights clear evidence of non-normality in the distribution of standard mortality rates when using the fixed effects model. Using the random effects model with between-study variance using the REML method mostly eliminated the non-normality. Therefore, the random effects model and the REML were chosen to calculate the weighted mean averages for standardised mortality rates across studies.

3.2. The omnibus test

To calculate a random effects model, the generic inverse variance method for overall SMR across the ten studies was used. The random effects model suggested a weighted average standardised mortality rate of SMR =3.26 ($z = 8.66$, $p < 0.0001$) and a 95% confidence interval of between 2.01 to 5.28. Suggesting that, overall, persons with bipolar disorder experienced 3.26 times more excess deaths than the general population, as can be seen in Figure 4 below.

Figure 4.

Forest plot of SMRs



However, a high level of heterogeneity across the included 10 studies was detected (Higgin's I^2 = 99%, tau^2 = 0.57, Q = 751.67 p =<0.01), which indicates that poorly controlled or confounding variables may lead to bias in the study-level standardised mortality rates. Thus, the following analyses will focus on detecting the sources of high heterogeneity in the SMR estimates across the 10 primary studies. Hayes et al., (2015) reported an overall standardised mortality rate of 2.05 (95% CI 1.89 to 2.23) in their original meta-analysis, whereas the current analysis identified an overall standardised mortality rate of 3.26 (95% CI 2.01 to 5.28). The differences between the two studies were not statistically significant (z = 2.08, p = 0.1491).

3.3. The impact of influential primary studies

A “leave-one-out” analysis was used to explore the impact of individual studies that disproportionately influenced the SMR (Kotepui et al., 2023). This is completed using a random effects model, which removes each singular study from the calculation, altering the weighted average SMR and the change in heterogeneity (e.g., inconsistency). The outcomes of the “leave-one-out” analysis are in the Baujat plot below (Baujat et al., 2002) in Figure 5.

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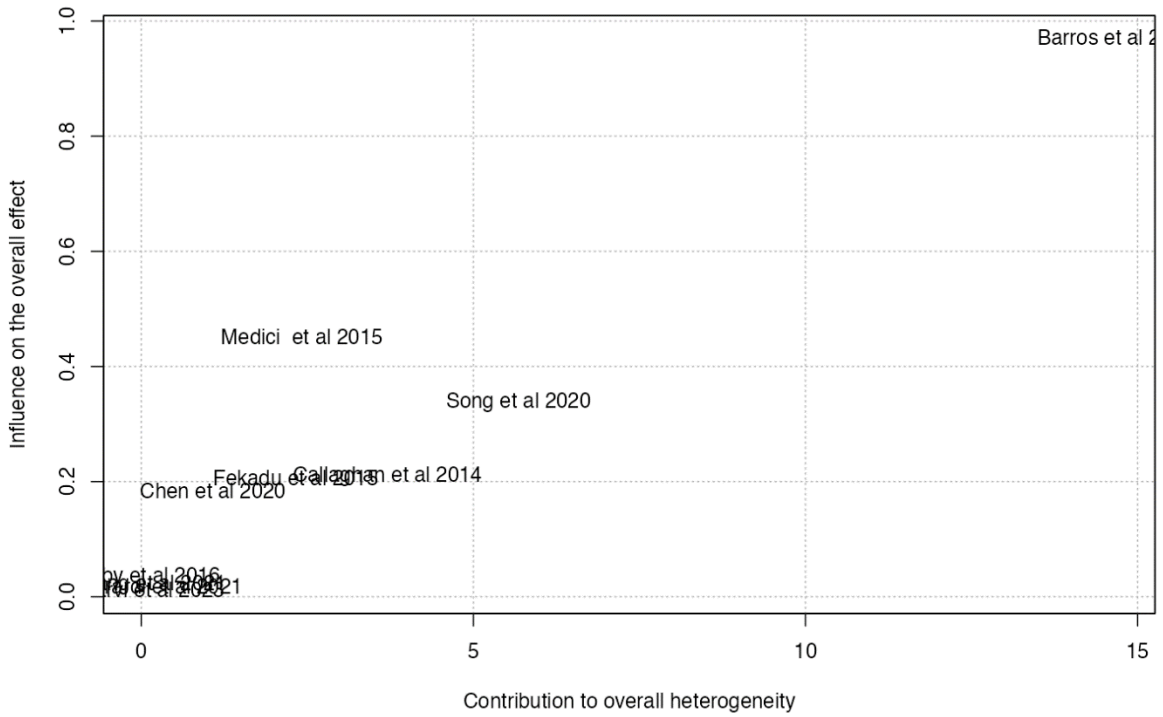
Figure 5.

Baujat diagnostic plot of sources of heterogeneity. The vertical axis details the study's influence on the overall SMR, and the horizontal axis details the study's discrepancy from the rest of the studies.



As seen in Figure 5, the omission of Barros et al., (2022) was associated with a substantial change in the weighted average SMR and a marked reduction in heterogeneity. The random effects model was recalculated with the Barros et al., (2022) removed. The corrected random effects model reported a Weighted average SMR = 2.56 (95% CI 2.01 to 3.27). The corrected random effects model evidences an approximately 11% reduction comparative to the uncorrected estimate. Barros et al., (2022) was re-examined with a view to its removal from this data should a significant risk of bias be identified. As no such risk of bias could be identified, Barros et al., (2022) were retained in these analyses.

3.4. The effect of study-level risk of bias in the primary studies

To examine the effect of study-level risk of bias on the weighted average SMR, a sequence of subgroup analyses were completed on the standardised mortality ratios (SMRs) for two risk-of-bias ratings: "low risk" and "any risk", with the “any risk” category incorporating both the unclear risk and high risks of bias. The weighted average SMR for the studies presenting "low risk" and "any risk" and the associated test of the significance of the difference between these risk categories are presented in Table 6 for each of the five types of study level bias.

Table 6.

Comparison of low risk of bias and any risk of bias for five types of study-level bias

	Low Risk			Any Risk				
	SMR	95% CI	k	SMR	95% CI	k	X^2	P
Selection bias	2.6762	2.1787 to 3.2872	7	4.8380	0.9219 to 25.3904	3	0.48	0.4873
Detection bias	2.5656	1.9650 to 3.3497	8	7.0663	0.9307 to 53.6517	2	0.94	0.3315
Statistical bias	3.6880	2.4730 to 5.4999	7	2.2069	1.4622 to 3.3310	3	3.08	0.0794
Reporting bias	3.1808	2.3337 to 4.3353	7	2.5123	1.5892 to 3.9717	3	0.70	0.4029
Generalisability bias	1.5000	0.8931 to 2.5192	9	3.0708	2.3884 to 3.9483	1	5.94	0.0148

Only Generalisability bias evidenced statistically significant differences in estimates of SMR, with lower levels of bias being associated with lower estimates of SMR. This suggests that the inclusion of studies that are at risk of generalisability bias increases the estimate of the standardised mortality rate for bipolar disorder. However, it should be noted that only one study (Medici et al., 2015) was rated as having any risk of generalisability bias, which questions the robustness of this finding.

3.5. The impact of publication and small study biases

Publication bias is caused by publishing statistically significant results whilst withholding papers with non-significant findings (Nair, 2019). Studies with small sample sizes but greater variability in their measurement of SMR can lead to small study biases (Lin, 2018). These biases can be detected in a funnel plot, which plots the size of the study's SMR against the precision of measurement (for example, a function of sample size). If publication bias is absent, then those studies with smaller sample sizes will scatter nearer the bottom of the funnel plot due to the higher variability compared to studies with larger sample sizes, which

will be scattered closer to the meta-analytic average. This creates a symmetrical funnel shape. However, where studies are not present in the assumed area for smaller studies and non-significant findings, then it can be assumed that perhaps an overestimation of the SMR is due to publication bias. If studies associated with small sample sizes and non-significant results are absent in the plot nearer to the bottom, then there is likely some publication bias. The funnel plot of study-level SMRs is presented in Figure 6.

Figure 6.

Funnel plot of the SMR. The 95% confidence interval of the expected distribution of SMR is shown as an reversed "funnel".

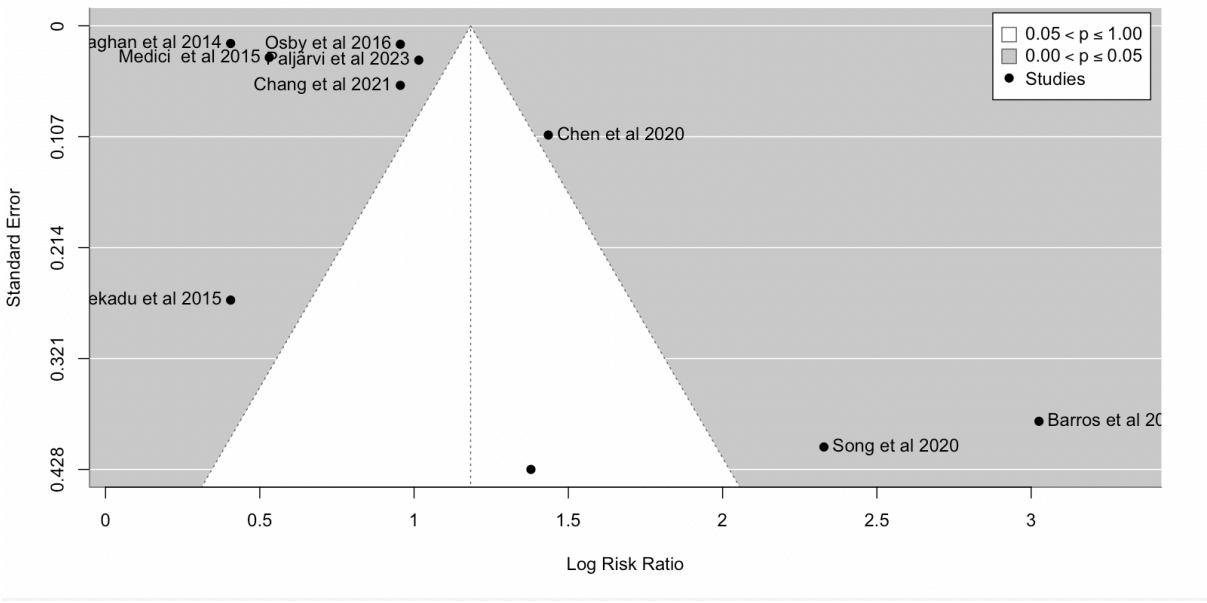


Figure 6 clearly illustrates the heterogeneity of study-level standardised mortality rates, with only one study falling within the 95% confidence interval for the weighted average value. Small studies (Barros et al., 2023; Song et al., 2020) produced estimates above the weighted average value. It should be noted that studies with smaller sample sizes (Song et al., 2020 and Barros et al., 2022) tended to produce estimates more than the weighted average value.

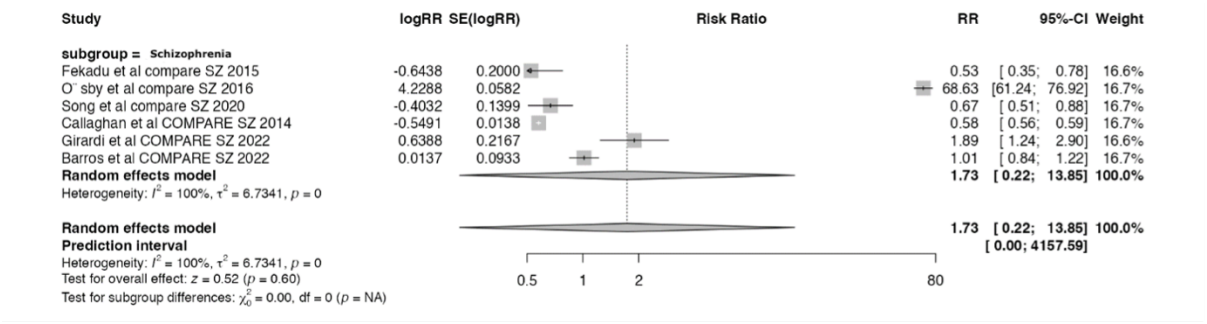
The trim & fill procedure (Duval & Tweedie, 2000) was used to explore the effect of possible publication biases. The foundation of the trim and fill procedure is based on the understanding that publication bias creates an asymmetrical funnel plot. This procedure excludes the most extreme small studies from the side of the funnel plot that are associated with positive effects; then the effect size is re-calculated until the funnel plot is symmetrical to the (corrected) effect size (Shi et al., 2019). A biased and limited confidence interval is calculated, as the trimming procedure creates the adjusted effect size whilst reducing the variance of the effects. For these reasons, the original 10 studies are added back into the analysis, and the next step involves imputing a reflection for each study on the side of the funnel plot that is linked to negative effects. The Trim & Fill procedure (Duval & Tweedie, 2000) could not mirror additional studies; therefore, it was impossible to compute a weighted average mean corrected for publication bias in this analysis.

3.6. The risk of mortality in bipolar disorder compared with schizophrenia.

Figure 7 below depicts the risk ratio in bipolar disorder compared with the risk ratio in schizophrenia. This was computed by dividing the number of people with a condition by the actual number of deaths within the condition. A non-significant risk ratio was observed (RR = 1.7, z = 0.52, p = 0.6049), suggesting that the risk of mortality for bipolar disorder and schizophrenia was not reliably different. The risk ratio for schizophrenia was extracted and analysed in papers that also reported mortality rates in schizophrenia (n=6).

Figure 7.

The risk ratio of mortality in bipolar disorder compared with the risk ratio in schizophrenia.

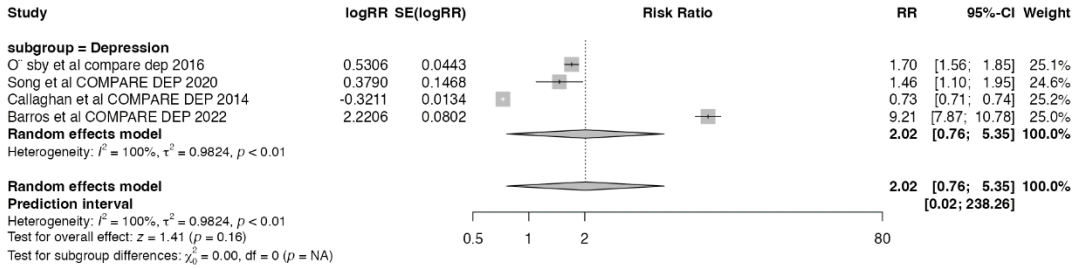


3.7. The risk ratio of mortality in bipolar disorder compared with depression.

Figure 8 below shows the risk ratio of mortality in bipolar disorder compared with the mortality rate in depression. A non-significant risk ratio was observed (RR = 2.02, z = 1.41, p = 0.1584), suggesting that the risk of mortality rates for bipolar disorder and depression were not reliably different. The risk ratio for depression was extracted and analysed in papers that reported mortality rates in depression (n= 4).

Figure 8.

The risk ratio of mortality in bipolar disorder compared with depression.



3.8. Natural Versus Unnatural Cause of Death

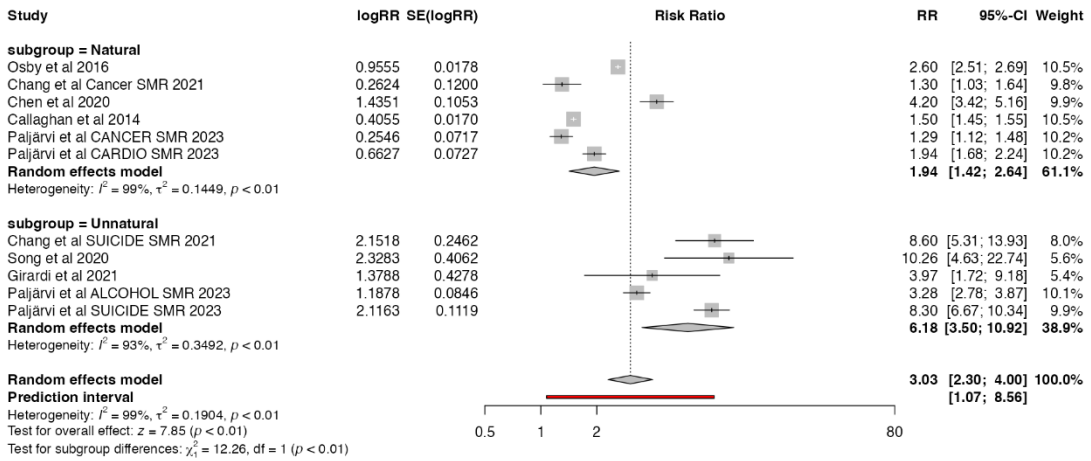
The standardised mortality rates associated with natural and unnatural causes of death were calculated and compared. Natural causes of death were categorised as death caused by cardiovascular disease, neoplasm, and infections. Unnatural death was grouped by causes such as suicide and alcohol-related deaths, which replicated how these causes were categorised in the earlier meta-analysis (Hayes et al., 2015). Both natural and unnatural causes of death were significantly higher in bipolar disorder than in the general population. However, there was a statistically significant difference (X2 = 12.26, p < 0.01), indicating that persons with bipolar disorder were at greater risk of unnatural causes of death (such as suicide) compared to natural causes of death. Data on natural and unnatural causes of death and the related SMRs were extracted from papers that reported cause-specific mortality rates and were not grouped as “natural” or “unnatural” without a specific breakdown of causes with associated SMRs. Hayes et al., (2015) reported a standardised unnatural death rate of 7.42 (95% CI 6.43 to 8.55), whereas the current studies identified an unnatural death rate of 6.18 (95% CI 3.50 to 10.92). The differences between the two studies were not statistically significant (z = 0.04, p = 0.5288). Additionally, they also reported a standardised natural death rate of 1.64 (95% CI 1.47 to 1.83), whereas the current studies identified an overall standardised natural death rate of 1.94 (95% CI 1.42 to 2.64). The two studies'

differences were not statistically significant (z = 0.85, p = 0.5288).

Some papers explored more than one cause of death in their papers (n=11). This can be seen in Figure 9 below.

Figure 9.

SMRs of death by natural or unnatural causes



4. Discussion

This study explored the all-cause and cause-specific excess mortality rate among those with bipolar disorder compared to the general population by combining excess mortality rates, expressed through standardised mortality rates, which were reported across ten papers. Where reported, the risk of death between disorders was also calculated and reported e.g., the risk of dying with bipolar disorder Vs. schizophrenia.

This meta-analysis highlighted that people with BD have an excess mortality rate approximately 3 times higher than the general population. This rate is slightly higher than the meta-analysis completed in 2015 (Hayes et al., 2015), which reported an excess mortality rate approximately 2 times that of the general population. The earlier meta-analysis also noted high heterogeneity (I2 = 96.2%), which could not be accounted for by publication bias or cohort sizes. Heterogeneity was also high across all studies in this meta-analysis and could not be accounted for by publication bias or cohort size (Higgin's I^2 = 99%, tau^2 = 0.57, Q = 751.67 p =<0.01). These results suggest that unidentified factors may have impacted the differences between studies. Analyses also suggest no statistical differences between the SMR reported in the earlier meta-analysis (Hayes et al., 2015) and this current paper. Therefore, it can be concluded that findings from the previous paper are still relevant today and that there has not been a substantial change in reported mortality rates.

Higher rates of comorbidity have been reported among patients with bipolar disorder in Western populations (USA, Europe) compared to Eastern populations (Merikangas et al., 2011), which may account for the high heterogeneity, as there may have been significant differences in physical illnesses and psychiatric co-morbidities depending on the geographical locations. Differences in mental healthcare systems across locations may have also impacted

the heterogeneity across studies. The number of mental health clinicians across Asia is lower than the levels recommended by the World Health Organisation (Meshvara, 2002), which may impact treatment time, quality of care, and policy implementation (Ng et al., 2009). Many European countries have committed to developing community-based mental health services and integrating both mental health and primary health care to shorten wait lists and improve the quality of care (Semrau et al., 2011). Therefore, differences in the quality of care, access, and treatment time across regions may have influenced the heterogeneity noted here. The certification of mortality follows similar procedures across regions, whereby death is certified by a doctor or coroner (WHO, 2020). Mortality rate and cause of death are also recorded similarly across regions. However, (WHO, 2020) states that most East Asian countries, including Japan, Korea, and Hong Kong, have poor reporting procedures due to issues with the quality of data, such as the delay in registering death and not accurately reporting the cause of death, thus publishing incomplete data. Some remote areas in East Asian countries may face challenges in accessing doctors and completing death registration documents; therefore, they rely on verbal confirmation of death from family members (Hayashi, 2022). In some Western countries, such as the USA and the UK, policies state that death registration must occur within five days of being certified by a physician or coroner and include information such as primary cause, which is standardised by allocating specific codes (Adeyinka & Bailey, 2023). Variations in procedures and reliability can influence the overall incidence rates reported. Mortality rates may not represent actual mortality within a country due to challenges such as accurately registering death and correctly allocating the cause of death. This can impact overall mortality rate findings, as the actual mortality rate for specific causes per disorder may be under or over-reported and may not reflect reality.

First acknowledged in December 2019, COVID-19 rapidly spread across approximately 72 countries, causing approximately 90,000 cases of mortality worldwide by 2020 (Di Gennaro et

al., 2020). Evidence suggests that people with a BD diagnosis who contracted COVID-19 had a higher mortality rate compared to the general population (Fond et al., 2023). As six of the ten included studies were published in 2020 and later, it is possible that the variation of COVID-19 infections and its related impact may have also contributed to the high heterogeneity across studies.

The removal of one study (Barros et al., 2023), which reported an elevated excess mortality rate 20 times higher than the general population, reduced the overall SMR, which reported an SMR consistent with the earlier meta-analysis (Hayes et al., 2015). However, upon further inspection, a decision was made to keep the study in the meta-analysis as there were no significant differences in recruitment method, analysis or reporting to the other included studies. In understanding why this paper reported a mortality rate 20 times higher than the general population, it's important to note that the population in this study was middle-aged, specifically those between 40 and 69 years old. Findings suggest an increase in excess deaths among those aged between 45 and 69 compared to the general population (Pearson-Stuttard et al., 2024). This may explain why this group's mortality rate was substantially higher than in the other papers, as other studies included a wider age range of adults in their analysis (16-70 years old). Additionally, the authors recognise that COVID-19 may have amplified the mortality rate, as they found a 15% increase in mortality rate during 2020-2021 compared to earlier data collection time points. Recent studies have shown that people with mental disorders have double the risk of death if they contract COVID-19 (Yang et al., 2020). These findings suggest, alongside the middle age ranges, that COVID-19 may have disproportionally increased the mortality rate among those with bipolar disorder, as they had included data from 2020-2021 in this study.

An elevated excess mortality rate was found for both natural and unnatural causes of death compared to the general population. Natural causes of death were categorised as studies that reported SMRs for infections, cardiovascular diseases, and neoplasms. Unnatural causes of death were categorised as all studies that explored suicide and alcohol use and excess mortality rates. It was found that the excess mortality rate was 1.9 times higher than the general

population for natural deaths and approximately 6 times higher than the general population for unnatural causes of mortality. These findings are slightly different from those from the earlier meta-analysis (Hayes et al., 2015), whereby the SMR of natural deaths is similar, but the SMR of unnatural deaths is lower in this study. However, the difference is minimal, where the previous study reported an SMR of unnatural deaths as 7.4, and this study reports an SMR of 6.2. The excess mortality rate for unnatural causes was statistically significantly higher than for natural causes., which is like that of the previous meta-analysis (Hayes et al., 2015). The findings illustrate that more people with BD are still more likely to die of unnatural causes than natural causes, highlighting minimal change in excess deaths within 9 years since the publication of the last meta-analysis (Hayes et al., 2015). This indicates the importance, as well as the need for specific, targeted interventions in supporting people with bipolar disorder who are at risk of suicide or drug and alcohol-induced deaths. These interventions can include offering specialised, evidence-based psychological interventions, fostering a collaborative approach with the individual and caregiver by discussing how risks will be flagged to the care team and recognising and diagnosing BD early, so effective treatment and care can be delivered (Kendall et al., 2014).

A survey by Bipolar UK, (2022) reported that approximately 5% of people who relapsed within a six-month period had attempted suicide. Relapses can be prevented by better access to evidence-based interventions; The Bipolar Commission (Bipolar UK, 2022) urges for better mental health provision for people in supporting people develop relapse prevention plans to help reduce the risk of suicide among this group.

These findings also suggest the need for more specific policies and guidelines that target suicidal risk or accidental death. These may include developing safety plans with individuals, helping them identify triggers that increase the risk of suicide, and identifying steps they can take to reduce this risk. Evidence suggests that manic episodes are likely to increase impulsive,

risk-taking behaviours (Holmes et al., 2009), such as alcohol or drug abuse and reckless driving, whilst low moods may increase the likelihood of self-injury, poor adherence to medication and substance misuse (Bassett, 2010). Therefore, as the negative consequences of these two mood states may increase the likelihood of unnatural mortality, helping individuals understand and identify their low and high moods to apply positive coping strategies may be beneficial in reducing the risk of unnatural mortality.

The NHS long-term plan (NHS England, 2019) recognises the importance of suicide prevention. It has prioritised working towards reducing suicide rates by investing in existing mental health services and developing enhanced mental health care crisis models. The NHS long-term plan (NHS England, 2019) also acknowledges the need for increasing access to mental health care while developing new, more inclusive services for those with complex needs. However, it is unclear how much of this recognition will benefit those specifically with BD, therefore the Bipolar Commission (Bipolar UK, 2022) calls for specific, targeted support for those with BD.

No significant differences in risk of mortality were found between bipolar disorder, depression and psychotic disorders in studies that reported this data. Despite this, specialist services exist for those who present with depressive disorders, such as Improving Access to Psychological Services (IAPT) (Clark, 2011) and Early Intervention Services (EIP) (Corsico et al., 2018) for those who present with first episode psychosis & schizophrenia. Both services are offered nationally across the United Kingdom; however, to knowledge, no specialist service is offered to individuals with a bipolar disorder diagnosis across the UK. This further supports the claim for developing policies, leading to the development of specialist services for people with bipolar disorder, as people with BD are at a similar risk of mortality to those with other severe psychiatric disorders worldwide and yet, this remains an underserved population. Findings suggest that approximately 30% of those diagnosed with a psychotic disorder do not

receive treatment. Whereas approximately 50% of those diagnosed with BD are not receiving specialist interventions (Kohn et al., 2004), further highlighting treatment disparity and the need for improving access and developing interventions for those diagnosed with bipolar disorder.

5. Strengths and Limitations

This meta-analysis included a small number of studies (10). Therefore, conclusions should be drawn with caution. However, the total sample size yielded above 200,000 participants, allowing for some confidence in generalizability. Due to the limited available data, it was difficult to compare excess mortality rates across specific causes, e.g., cancer, suicide, and cardiovascular diseases. So, these causes were grouped into "natural" and "unnatural" causes. In doing this, it is difficult to identify whether a specific cause is associated with higher excess mortality in BD. However, a significant difference was still identified between natural and unnatural causes, and future studies could further explore the specific unnatural causes of high excess mortality in BD. Information such as the mortality rates across gender and age groups was inconsistently reported across all studies. This made it difficult to complete sub-group analyses to explore whether a specific age group or gender had a higher excess mortality rate than the general population. Future studies would benefit from exploring whether there is an association between personal characteristics and excess mortality rates, as this would help identify and target the specific needs within society, for example, developing specialist interventions for a young population. It is unclear what medication and dosage patients were prescribed in the included studies, which may have influenced the reported SMRs across studies. Future research could report this data for better variable controls.
This study assessed the risk of bias in the included studies and accounted for this within

analyses, increasing the robustness and transparency of the findings reported in this study (Smith et al., 2024). The Prisma, 2020 guidelines were followed throughout this process, ensuring rigour and confidence in the analysis and findings (Page et al., 2021).

6. Clinical implications

These findings underscore the value of continuously monitoring the mortality rate among those with BD and evaluating current policies, guidelines, and interventions in their effectiveness in reducing the mortality rates among this group. The findings also demonstrate the need for specialist, targeted intervention for people with BD, who appear to have a similar risk of death to other conditions such as depression and schizophrenia but receive specialist treatment pathways and services, unlike those with BD. The excess mortality rate due to unnatural causes were significantly elevated, calling for a need for evidence-based interventions that support individuals in identifying early warning signs and relapse prevention.

7. Summary

The findings from this meta-analysis are slightly elevated to those of the earlier meta-analysis (Hayes et al., 2015), suggesting no improvement in all-cause excess mortality rates among those with BD. This highlights a gradually increasing gap between mortality rates among those with BD and the general population and indicates a need for direct intervention, which may include new service provisions, interventions, and policies to help reduce mortality rates. Findings also suggest that people with BD are up to 6 times more likely to die of unnatural causes such as suicide compared to the general population and 1.9 times more likely to die of natural causes compared to the general population. This meta-analysis has emphasised that the risk of mortality is similar to the risk of mortality across other diagnoses, such as depressive disorders, further indicating the need for specialist support for people with BD,

particularly as this is an underserved population compared to other disorders (Kohn et al., 2004).

References

Alonso, J., Petukhova, M., Vilagut, G., Chatterji, S., Heeringa, S., Üstün, T. B., Alhamzawi, A. O., Viana, M. C., Angermeyer, M., Bromet, E., Bruffaerts, R., De Girolamo, G., Florescu, S., Gureje, O., Haro, J. M., Hinkov, H., Hu, C. Y., Karam, E. G., Kovess, V., … Kessler, R. C. (2011). Days out of role due to common physical and mental conditions: Results from the WHO World Mental Health surveys. *Molecular Psychiatry*, *16*(12). https://doi.org/10.1038/mp.2010.101

Adeyinka, A., & Bailey, K. (2023). Death Certification. In *StatPearls*. StatPearls Publishing.

American Psychiatric Association. (2013). American Psychiatric Association: Diagnostic and Statistical Manual of Mental Disorders Fifth Edition. In *Arlington*.

Angst, F., Stassen, H. H., Clayton, P. J., & Angst, J. (2002). Mortality of patients with mood disorders: Follow-up over 34-38 years. *Journal of Affective Disorders*, *68*(2–3). https://doi.org/10.1016/S0165-0327(01)00377-9

Bassett, D. L. (2010). Risk assessment and management in bipolar disorders. In *Medical Journal of Australia* (Vol. 193, Issue 4). https://doi.org/10.5694/j.1326-5377.2010.tb03893.x

Baujat, B., Mahé, C., Pignon, J. P., & Hill, C. (2002). A graphical method for exploring heterogeneity in meta-analyses: Application to a meta-analysis of 65 trials. *Statistics in Medicine*, *21*(18). https://doi.org/10.1002/sim.1221

Belete, H., Ali, T., Legas, G., & Pavon, L. (2020). Relapse and Clinical Characteristics of Patients with Bipolar Disorders in Central Ethiopia: A Cross-Sectional Study. *Psychiatry Journal*, *2020*. https://doi.org/10.1155/2020/8986014

Berk, M., Ng, F., Wang, W. V., Tohen, M., Lubman, D. I., Vieta, E., & Dodd, S. (2008). Going up in smoke: Tobacco smoking is associated with worse treatment outcomes in mania. *Journal of Affective Disorders*, *110*(1–2). https://doi.org/10.1016/j.jad.2008.01.018

Biazus, T. B., Beraldi, G. H., Tokeshi, L., Rotenberg, L. de S., Dragioti, E., Carvalho, A. F., Solmi, M., & Lafer, B. (2023). All-cause and cause-specific mortality among people with bipolar disorder: a large-scale systematic review and meta-analysis. In *Molecular Psychiatry*. https://doi.org/10.1038/s41380-023-02109-9

Bipolar, UK (2022). Bipolar minds matter: quicker diagnosis and specialist support for everyone with bipolar. Available at: https://www.bipolaruk.org/Handlers/Download.ashx?IDMF=d4fd68a7-ffae-42bb-acf4-f7be3d903f02 (Accessed: 2024).

Boschesi Barros, V., Fortti Vianna Schmidt, F., & Chiavegatto Filho, A. D. P. (2023). Mortality, survival, and causes of death in mental disorders: Comprehensive prospective analyses of the UK Biobank cohort. *Psychological Medicine*, *53*(8). https://doi.org/10.1017/S0033291722000034

Bowden, C. L. (2005). A different depression: Clinical distinctions between bipolar and unipolar depression. In *Journal of Affective Disorders* (Vol. 84, Issues 2–3). https://doi.org/10.1016/S0165-0327(03)00194-0

Callaghan, R. C., Veldhuizen, S., Jeysingh, T., Orlan, C., Graham, C., Kakouris, G., Remington, G., & Gatley, J. (2014). Patterns of tobacco-related mortality among individuals diagnosed with schizophrenia, bipolar disorder, or depression. *Journal of Psychiatric Research*, *48*(1). https://doi.org/10.1016/j.jpsychires.2013.09.014

Chan, J. K. N., Wong, C. S. M., Yung, N. C. L., Chen, E. Y. H., & Chang, W. C. (2021). Excess mortality and life-years lost in people with bipolar disorder: An 11-year population-based cohort study. *Epidemiology and Psychiatric Sciences*. https://doi.org/10.1017/S2045796021000305

Checchi, F., & Roberts, L. (2005). Interpreting and using mortality data in humanitarian emergencies A primer for non-epidemiologists. *Humanitarian Pratice Network*, *44*(52).

Chen, P. H., Tsai, S. Y., Pan, C. H., Chang, H. M., Chen, Y. L., Su, S. S., Chen, C. C., & Kuo, C. J. (2020). Incidence and risk factors of sudden cardiac death in bipolar disorder across the lifespan. *Journal of Affective Disorders*, *274*. https://doi.org/10.1016/j.jad.2020.05.094

Clark, D. M. (2011). Implementing NICE guidelines for the psychological treatment of depression and anxiety disorders: The IAPT experience. In *International Review of Psychiatry* (Vol. 23, Issue 4). https://doi.org/10.3109/09540261.2011.606803

Correll, C. U., Detraux, J., De Lepeleire, J., & De Hert, M. (2015). Effects of antipsychotics, antidepressants and mood stabilizers on risk for physical diseases in people with schizophrenia, depression and bipolar disorder. *World Psychiatry*, *14*(2). https://doi.org/10.1002/wps.20204

Corsico, P., Griffin-Doyle, M., & Singh, I. (2018). What constitutes 'good practice' in early intervention for psychosis? Analysis of clinical guidelines. *Child and Adolescent Mental Health*, *23*(3). https://doi.org/10.1111/camh.12229

Crump, C., Sundquist, K., Winkleby, M. A., & Sundquist, J. (2013). Mental disorders and risk of accidental death. *British Journal of Psychiatry*, *203*(4). https://doi.org/10.1192/bjp.bp.112.123992

Deeks, J. J., Higgins, J. P., & Altman, D. G. (2019). Chapter 10: Analysing data and undertaking meta-analyses. *Cochrane Handbook for Systematic Reviews of Interventions*, *2*(February).

Dettori, J. R., Norvell, D. C., & Chapman, J. R. (2021). Risks, Rates and Odds: What's the Difference and Why Does It Matter? *Global Spine Journal*, *11*(7). https://doi.org/10.1177/21925682211029640

Di Gennaro, F., Pizzol, D., Marotta, C., Antunes, M., Racalbuto, V., Veronese, N., & Smith, L. (2020). Coronavirus diseases (COVID-19) current status and future perspectives: A narrative review. In *International Journal of Environmental Research and Public Health* (Vol. 17, Issue 8). https://doi.org/10.3390/ijerph17082690

Dickerson, F., Origoni, A., Rowe, K., Katsafanas, E., Newman, T., Ziemann, R. S., Squire, A., Khushalani, S., Stallings, C., Daumit, G., & Yolken, R. (2021). Risk factors for natural cause

mortality in a cohort of 1494 persons with serious mental illness. *Psychiatry Research*, *298*. https://doi.org/10.1016/j.psychres.2021.113755

Druss, B. G., Chwastiak, L., Kern, J., Parks, J. J., Ward, M. C., & Raney, L. E. (2018). Psychiatry's role in improving the physical health of patients with serious mental illness: A report from the American psychiatric association. *Psychiatric Services*, *69*(3). https://doi.org/10.1176/appi.ps.201700359

Duval, S., & Tweedie, R. (2000). Trim and fill: A simple funnel-plot-based method of testing and adjusting for publication bias in meta-analysis. *Biometrics*, *56*(2). https://doi.org/10.1111/j.0006-341X.2000.00455.x

Fazel, S., Ramesh, T., & Hawton, K. (2017). Suicide in prisons: an international study of prevalence and contributory factors. *The Lancet Psychiatry*, *4*(12). https://doi.org/10.1016/S2215-0366(17)30430-3

Fekadu, A., Medhin, G., Kebede, D., Alem, A., Cleare, A. J., Prince, M., Hanlon, C., & Shibre, T. (2015). Excess mortality in severe mental illness: 10-Year population-based cohort study rural Ethiopia. *British Journal of Psychiatry*, *206*(4). https://doi.org/10.1192/bjp.bp.114.149112

Fond, G., Pauly, V., Leone, M., Orleans, V., Garosi, A., Lancon, C., Auquier, P., Baumstarck, K., Llorca, P. M., & Boyer, L. (2023). Mortality among inpatients with bipolar disorders and COVID-19: a propensity score matching analysis in a national French cohort study. *Psychological Medicine*, *53*(5). https://doi.org/10.1017/S0033291721003676

Girardi, P., Boldrini, T., Braggion, M., Schievano, E., Amaddeo, F., & Fedeli, U. (2022). Suicide mortality among psychiatric patients in Northeast Italy: a 10-year cohort study. *Epidemiology and Psychiatric Sciences*, *31*. https://doi.org/10.1017/S2045796021000792

Goldberg, J. F., Harrow, M., & Grossman, L. S. (1995). Course and outcome in bipolar affective disorder: A longitudinal follow-up study. *American Journal of Psychiatry*, *152*(3). https://doi.org/10.1176/ajp.152.3.379

Gonda, X., Pompili, M., Serafini, G., Montebovi, F., Campi, S., Dome, P., Duleba, T., Girardi, P., & Rihmer, Z. (2012). Suicidal behavior in bipolar disorder: Epidemiology, characteristics and major risk factors. In *Journal of Affective Disorders* (Vol. 143, Issues 1–3). https://doi.org/10.1016/j.jad.2012.04.041

Harris, E. C., & Barraclough, B. (1998). Excess mortality of mental disorder. In *British Journal of Psychiatry* (Vol. 173, Issue JULY). https://doi.org/10.1192/bjp.173.1.11

Hassan, L., Peek, N., Lovell, K., Carvalho, A. F., Solmi, M., Stubbs, B., & Firth, J. (2022). Disparities in COVID-19 infection, hospitalisation and death in people with schizophrenia, bipolar disorder, and major depressive disorder: a cohort study of the UK Biobank. *Molecular Psychiatry*, *27*(2). https://doi.org/10.1038/s41380-021-01344-2

Hayashi, R. (ed.) (2022). *Health and Long-term Care Information in Ageing Asia.* ERIA Research Project Report 2022, No. 07

Hayes, J. F., Miles, J., Walters, K., King, M., & Osborn, D. P. J. (2015). A systematic review and meta-analysis of premature mortality in bipolar affective disorder. *Acta Psychiatrica Scandinavica*, *131*(6). https://doi.org/10.1111/acps.12408

Higgins, J. P. T., Altman, D. G., Gøtzsche, P. C., Jüni, P., Moher, D., Oxman, A. D., Savović, J., Schulz, K. F., Weeks, L., & Sterne, J. A. C. (2011). The Cochrane Collaboration's tool for assessing risk of bias in randomised trials. *BMJ (Online)*, *343*(7829). https://doi.org/10.1136/bmj.d5928

Higgins, J. P. T., & Thompson, S. G. (2002). Quantifying heterogeneity in a meta-analysis. *Statistics in Medicine*, *21*(11). https://doi.org/10.1002/sim.1186

Higgins, J. P. T., Thompson, S. G., Deeks, J. J., & Altman, D. G. (2003). Measuring inconsistency in meta-analyses. In *British Medical Journal* (Vol. 327, Issue 7414). https://doi.org/10.1136/bmj.327.7414.557

Hoang, U., Stewart, R., & Goldacre, M. J. (2011). Mortality after hospital discharge for people with schizophrenia or bipolar disorder: Retrospective study of linked English hospital episode statistics, 1999-2006. *BMJ (Online)*, *343*(7824). https://doi.org/10.1136/bmj.d5422

Holmes, M. K., Bearden, C. E., Barguil, M., Fonseca, M., Monkul, E. S., Nery, F. G., Soares, J. C., Mintz, J., & Glahn, D. C. (2009). Conceptualizing impulsivity and risk taking in bipolar disorder: Importance of history of alcohol abuse. *Bipolar Disorders*, *11*(1). https://doi.org/10.1111/j.1399-5618.2008.00657.x

Huang, J., Yuan, C. M., Xu, X. R., Wang, Y., Hong, W., Wang, Z. W., Su, Y. song, Hu, Y. Y., Cao, L., Wang, Y., Chen, J., & Fang, Y. R. (2018). The relationship between lifestyle factors and clinical symptoms of bipolar disorder patients in a Chinese population. *Psychiatry Research*, *266*. https://doi.org/10.1016/j.psychres.2018.04.059

Ishak, W. W., Brown, K., Aye, S. S., Kahloon, M., Mobaraki, S., & Hanna, R. (2012). Health-related quality of life in bipolar disorder. In *Bipolar Disorders* (Vol. 14, Issue 1). https://doi.org/10.1111/j.1399-5618.2011.00969.x

Jamison, K. R. (1997). Suicide and bipolar disorder. *Journal of Clinical Psychiatry*, *58*(7). https://doi.org/10.3109/9780203490754-6

Kendall, T., Morriss, R., Mayo-Wilson, E., Marcus, E., Mavranezouli, I., Braidwood, R., Byng, R., Cipriani, A., Garcia-Niño, K., Geddes, J., Hughes, K., James, A., John, C., Jones, S., Leggett, K., McDougall, T., Meyer, T., Paton, C., Schwannauer, M., … Wilson, F. (2014). Assessment and management of bipolar disorder: Summary of updated NICE guidance. *BMJ (Online)*, *349*. https://doi.org/10.1136/bmj.g5673

Kessing, L. V., Vradi, E., McIntyre, R. S., & Andersen, P. K. (2015). Causes of decreased life expectancy over the life span in bipolar disorder. *Journal of Affective Disorders*, *180*. https://doi.org/10.1016/j.jad.2015.03.027

Khalsa, H. M. K., Salvatore, P., Hennen, J., Baethge, C., Tohen, M., & Baldessarini, R. J. (2008). Suicidal events and accidents in 216 first-episode bipolar I disorder patients: Predictive factors. *Journal of Affective Disorders*, *106*(1–2). https://doi.org/10.1016/j.jad.2007.05.027

Kim, S. Y., Park, J. E., Lee, Y. J., Seo, H. J., Sheen, S. S., Hahn, S., Jang, B. H., & Son, H. J. (2013). Testing a tool for assessing the risk of bias for nonrandomized studies showed moderate reliability and promising validity. *Journal of Clinical Epidemiology*, *66*(4). https://doi.org/10.1016/j.jclinepi.2012.09.016

Kindig, D. A., & Stoddart, G. (2003). What is population health? In *American Journal of Public Health* (Vol. 93, Issue 3). https://doi.org/10.2105/AJPH.93.3.380

Kohn, R., Saxena, S., Levav, I., & Saraceno, B. (2004). The treatment gap in mental health care. *Bulletin of the World Health Organization*, *82*(11). https://doi.org//S0042-96862004001100011

Kotepui, K. U., Mahittikorn, A., Wilairatana, P., Masangkay, F. R., & Kotepui, M. (2023). Regional and Age-Related Variations in Blood Calcium Levels among Patients with Plasmodium falciparum and P. vivax malaria: A Systematic Review and Meta-Analysis. *Nutrients*, *15*(21). https://doi.org/10.3390/nu15214522

Laursen, T. M. (2011). Life expectancy among persons with schizophrenia or bipolar affective disorder. *Schizophrenia Research*, *131*(1–3). https://doi.org/10.1016/j.schres.2011.06.008

Lin, C. C., Yeh, L. L., & Pan, Y. J. (2023). Degree of exposure to psychotropic medications and mortality in people with bipolar disorder. *Acta Psychiatrica Scandinavica*, *147*(2). https://doi.org/10.1111/acps.13509

Lin, L. (2018). Bias caused by sampling error in meta-analysis with small sample sizes. *PLoS ONE*, *13*(9). https://doi.org/10.1371/journal.pone.0204056

Medici, C. R., Videbech, P., Gustafsson, L. N., & Munk-Jørgensen, P. (2015). Mortality and secular trend in the incidence of bipolar disorder. *Journal of Affective Disorders*, *183*. https://doi.org/10.1016/j.jad.2015.04.032

Merikangas, K. R., Jin, R., He, J. P., Kessler, R. C., Lee, S., Sampson, N. A., Viana, M. C., Andrade, L. H., Hu, C., Karam, E. G., Ladea, M., Medina-Mora, M. E., Ono, Y., Posada-Villa, J., Sagar, R., Wells, J. E., & Zarkov, Z. (2011). Prevalence and correlates of bipolar spectrum disorder in the World Mental Health Survey Initiative. *Archives of General Psychiatry*, *68*(3). https://doi.org/10.1001/archgenpsychiatry.2011.12

Meshvara, D. (2002). Mental health and mental health care in Asia. *World Psychiatry : Official Journal of the World Psychiatric Association (WPA)*, *1*(2).

Michalak, E. E., Yatham, L. N., Kolesar, S., & Lam, R. W. (2006). Bipolar disorder and quality of life: A patient-centered perspective. In *Quality of Life Research* (Vol. 15, Issue 1). https://doi.org/10.1007/s11136-005-0376-7

Nair, A. (2019). Publication bias - Importance of studies with negative results! In *Indian Journal of Anaesthesia* (Vol. 63, Issue 6). https://doi.org/10.4103/ija.IJA_142_19

Ng, C., Herrman, H., Chiu, E., & Singh, B. (2009). Community mental health care in the Asia-Pacific region: Using current best-practice models to inform future policy. *World Psychiatry*, *8*(1). https://doi.org/10.1002/j.2051-5545.2009.tb00211.x

NHS England. (2019). NHS Long Term Plan. In *NHS Improvement*.

Nikolakopoulou, A., Mavridis, D., & Salanti, G. (2014). How to interpret meta-analysis models: Fixed effect and random effects meta-analyses. *Evidence-Based Mental Health*, *17*(2). https://doi.org/10.1136/eb-2014-101794

Nolte, E., & McKee, M. (2003). Measuring the health of nations: Analysis of mortality amenable to health care. *British Medical Journal*, *327*(7424). https://doi.org/10.1136/bmj.327.7424.1129

Nordentoft, M., Mortensen, P. B., & Pedersen, C. B. (2011). Absolute risk of suicide after first hospital contact in mental disorder. *Archives of General Psychiatry*, *68*(10). https://doi.org/10.1001/archgenpsychiatry.2011.113

Ösby, U., Brandt, L., Correia, N., Ekbom, A., & Sparén, P. (2001). Excess mortality in bipolar and unipolar disorder in Sweden. *Archives of General Psychiatry*, *58*(9). https://doi.org/10.1001/archpsyc.58.9.844

Ösby, U., Westman, J., Hällgren, J., & Gissler, M. (2016). Mortality trends in cardiovascular causes in schizophrenia, bipolar and unipolar mood disorder in Sweden 1987-2010. *European Journal of Public Health*, *26*(5). https://doi.org/10.1093/eurpub/ckv245

Oud, M., Mayo-Wilson, E., Braidwood, R., Schulte, P., Jones, S. H., Morriss, R., Kupka, R., Cuijpers, P., & Kendall, T. (2016). Psychological interventions for adults with bipolar disorder: Systematic review and meta-analysis. In *British Journal of Psychiatry* (Vol. 208, Issue 3). https://doi.org/10.1192/bjp.bp.114.157123

Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., … Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. In *The BMJ* (Vol. 372). https://doi.org/10.1136/bmj.n71

Paljärvi, T., Herttua, K., Taipale, H., Lähteenvuo, M., Tanskanen, A., Fazel, S., & Tiihonen, J. (2023). Cause-specific excess mortality after first diagnosis of bipolar disorder: population-based cohort study. *BMJ Mental Health*, *26*(1). https://doi.org/10.1136/bmjment-2023-300700

Patel, V., Saxena, S., Lund, C., Thornicroft, G., Baingana, F., Bolton, P., Chisholm, D., Collins, P. Y., Cooper, J. L., Eaton, J., Herrman, H., Herzallah, M. M., Huang, Y., Jordans, M. J. D., Kleinman, A., Medina-Mora, M. E., Morgan, E., Niaz, U., Omigbodun, O., … UnÜtzer, Jü. (2018). The Lancet Commission on global mental health and sustainable development. In *The Lancet* (Vol. 392, Issue 10157). https://doi.org/10.1016/S0140-6736(18)31612-X

Pearson-Stuttard, J., Caul, S., McDonald, S., Whamond, E., & Newton, J. N. (2024). Excess mortality in England post Covid-19 pandemic: implications for secondary prevention. In The Lancet Regional Health - Europe (Vol. 36). https://doi.org/10.1016/j.lanepe.2023.100802

Pompili, M., Rihmer, Z., Innamorati, M., Lester, D., Girardi, P., & Tatarelli, R. (2009). Assessment and treatment of suicide risk in bipolar disorders. In *Expert Review of Neurotherapeutics* (Vol. 9, Issue 1). https://doi.org/10.1586/14737175.9.1.109

Reynolds, G. p. (2011). Receptor mechanisms of antipsychotic drug action in bipolar disorder – focus on asenapine. *Therapeutic Advances in Psychopharmacology*, *1*(6). https://doi.org/10.1177/2045125311430112

Roshanaei-Moghaddam, B., & Katon, W. (2009). Premature mortality from general medical illnesses among persons with bipolar disorder: A review. In *Psychiatric Services* (Vol. 60, Issue 2). https://doi.org/10.1176/ps.2009.60.2.147

Rossom, R. C., Hooker, S. A., O'Connor, P. J., Crain, A. L., & Sperl-Hillen, J. M. (2022). Cardiovascular Risk for Patients With and Without Schizophrenia, Schizoaffective Disorder, or Bipolar Disorder. *Journal of the American Heart Association*, *11*(6). https://doi.org/10.1161/JAHA.121.021444

Sajatovic, M. (2005). Bipolar disorder: Disease burden. *American Journal of Managed Care*, *11*(SUPPL. 3).

Schaffer, A., Isometsä, E. T., Tondo, L., Moreno, D. H., Sinyor, M., Lars Vedel, K., Turecki, G., Weizman, A., Azorin, J. M., Ha, K., Reis, C., Cassidy, F., Goldstein, T., Rihmer, Z., Beautrais, A., Chou, Y. H., Diazgranados, N., Levitt, A. J., Zarate, C. A., & Yatham, L. (2015). Epidemiology, neurobiology and pharmacological interventions related to suicide deaths and suicide attempts in bipolar disorder: Part I of a report of the International Society for Bipolar Disorders Task Force on Suicide in Bipolar Disorder. In *Australian and New Zealand Journal of Psychiatry* (Vol. 49, Issue 9). https://doi.org/10.1177/0004867415594427

Scorza, F. A., Cysneiros, R. M., Terra, V. C., Scorza, C. A., Cavalheiro, E. A., Ribeiro, M. O., & Gattaz, W. F. (2009). Omega-3 consumption and sudden cardiac death in schizophrenia. *Prostaglandins Leukotrienes and Essential Fatty Acids*, *81*(4). https://doi.org/10.1016/j.plefa.2009.06.008

Scorza, F. A., de Almeida, A.-C. G., Scorza, C. A., Cysneiros, R. M., & Finsterer, J. (2021). Sudden death in schizophrenia: pay special attention and develop preventive strategies. *Current Medical Research and Opinion*, *37*(9). https://doi.org/10.1080/03007995.2021.1937089

Semrau, M., Barley, E. A., Law, A., & Thornicroft, G. (2011). Lessons learned in developing community mental health care in Europe. In *World Psychiatry* (Vol. 10, Issue 3). https://doi.org/10.1002/j.2051-5545.2011.tb00060.x

Shi, L., Lin, L., & Omboni, S. (2019). The trim-and-fill method for publication bias: Practical guidelines and recommendations based on a large database of meta-analyses. *Medicine (United States)*, *98*(23). https://doi.org/10.1097/MD.0000000000015987

Shi, L., Thiebaud, P., & McCombs, J. S. (2004). The impact of unrecognized bipolar disorders for patients treated for depression with antidepressants in the fee-for-services California Medicaid (Medi-Cal) program. *Journal of Affective Disorders*, *82*(3). https://doi.org/10.1016/j.jad.2004.03.009

Simon, G. E., Hunkeler, E., Fireman, B., Lee, J. Y., & Savarino, J. (2007). Risk of suicide attempt and suicide death in patients treated for bipolar disorder 1. *Bipolar Disorders*, *9*(5). https://doi.org/10.1111/j.1399-5618.2007.00408.x

Singh, Tanvir., Rajput, Rajput. (2005). Misdiagnosis of bipolar disorder. *American Journal of Managed Care*, *11*(SUPPL. 9).

Smith, K. W., Freeman, N. L. B., & Bir, A. (2024). Assessing risk of bias in the meta-analysis of round 1 of the Health Care Innovation Awards. *Systematic Reviews*, *13*(1). https://doi.org/10.1186/s13643-023-02409-9

Song, Y., Rhee, S. J., Lee, H., Kim, M. J., Shin, D., Ahn, Y. M., Song, Y., Lee, H., Kim, M. J., & Shin, D. (2020). Comparison of Suicide Risk by Mental Illness: a Retrospective Review of 14-Year Electronic Medical Records. *Journal of Korean Medical Science*, *35*(47). https://doi.org/10.3346/jkms.2020.35.e402

Staudt Hansen, P., Frahm Laursen, M., Grøntved, S., Puggard Vogt Straszek, S., Licht, R. W., & Nielsen, R. E. (2019). Increasing mortality gap for patients diagnosed with bipolar disorder—A nationwide study with 20 years of follow-up. *Bipolar Disorders*, *21*(3). https://doi.org/10.1111/bdi.12684

Sylvia, L. G., Shelton, R. C., Kemp, D. E., Bernstein, E. E., Friedman, E. S., Brody, B. D., Mcelroy, S. L., Singh, V., Tohen, M., Bowden, C. L., Ketter, T. A., Deckersbach, T., Thase, M. E., Reilly-Harrington, N. A., Nierenberg, A. A., Rabideau, D. J., Kinrys, G., Kocsis, J. H., Bobo, W. V., … Calabrese, J. R. (2015). Medical burden in bipolar disorder: Findings from the Clinical and Health Outcomes Initiative in Comparative Effectiveness for Bipolar Disorder study (Bipolar CHOICE). *Bipolar Disorders*, *17*(2). https://doi.org/10.1111/bdi.12243

Taylor, P. (2013a). Standardized mortality ratios. *International Journal of Epidemiology*, *42*(6). https://doi.org/10.1093/ije/dyt209

Taylor, P. (2013b). Standardized mortality ratios. *International Journal of Epidemiology*, *42*(6). https://doi.org/10.1093/ije/dyt209

Valtonen, H., Suominen, K., Mantere, O., Leppämäki, S., Arvilommi, P., & Isometsä, E. T. (2005). Suicidal ideation and attempts in bipolar I and II disorders. *Journal of Clinical Psychiatry*, *66*(11). https://doi.org/10.4088/JCP.v66n1116

Westman, J., Hällgren, J., Wahlbeck, K., Erlinge, D., Alfredsson, L., & Ösby, U. (2013). Cardiovascular mortality in bipolar disorder: A population-based cohort study in Sweden. *BMJ Open*, *3*(4). https://doi.org/10.1136/bmjopen-2012-002373

Whiteford, H. A., Ferrari, A. J., Degenhardt, L., Feigin, V., & Vos, T. (2015). The global burden of mental, neurological and substance use disorders: An analysis from the global burden of disease study 2010. *PLoS ONE*, *10*(2). https://doi.org/10.1371/journal.pone.0116820

WHO. (2020). WHO methods and data sources for country-level causes of death 2000-2019. Global Health Estimates Technical Paper, December.

Wilson, R., Gaughran, F., Whitburn, T., Higginson, I. J., & Gao, W. (2019). Place of death and other factors associated with unnatural mortality in patients with serious mental disorders: population-based retrospective cohort study. *BJPsych Open*, *5*(2). https://doi.org/10.1192/bjo.2019.5

Yang, H., Chen, W., Hu, Y., Chen, Y., Zeng, Y., Sun, Y., Ying, Z., He, J., Qu, Y., Lu, D., Fang, F., Valdimarsdóttir, U. A., & Song, H. (2020). Pre-pandemic psychiatric disorders and risk of COVID-19: a UK Biobank cohort analysis. The Lancet Healthy Longevity, 1(2). https://doi.org/10.1016/S2666-7568(20)30013-1

Yeh, H. H., Westphal, J., Hu, Y., Peterson, E. L., Keoki Williams, L., Prabhakar, D., Frank, C., Autio, K., Elsiss, F., Simon, G. E., Beck, A., Lynch, F. L., Rossom, R. C., Lu, C. Y., Owen-Smith, A. A., Waitzfelder, B. E., & Ahmedani, B. K. (2019). Diagnosed mental health conditions and risk of suicide mortality. *Psychiatric Services*, *70*(9). https://doi.org/10.1176/appi.ps.201800346

Zhai, C., & Guyatt, G. (2024). Fixed-effect and random-effects models in meta-analysis. In *Chinese Medical Journal* (Vol. 137, Issue 1). https://doi.org/10.1097/CM9.0000000000002814

Chapter 2: Empirical paper.

Patients' perspectives of online group CBT therapy for people with bipolar disorder- a qualitative analysis.

1. Introduction

1.1. Bipolar Disorder – A Severe mental disorder

Bipolar Disorder is categorised as a Severe Mental Disorder; this group of conditions include psychotic and major mood disorders, such as psychosis and bipolar disorder (Viron & Stern, 2010) and are considered one of the largest disease burdens worldwide (Vos et al., 2015). Severe mental disorders (SMD) comprise disorders that affect an individual's mood, cognition, quality of life and general functioning (HM Government, 2011). Approximately 0.72% of the population in England receives a diagnosis of psychosis, and 1-2% receive a diagnosis of bipolar disorder (Pini et al., 2005). Those with SMD are 90% more likely to be unemployed, which limits opportunities for economic growth, education and developing social networks within society (World Health Organization, 2011). Despite the negative effects of severe mental illness on individuals, only a quarter of people who are diagnosed receive treatment (Parish, 2012). The accumulative yearly costs that include A&E, inpatient care, drug use, lost tax revenue and mortality for those with SMD are estimated to be between £5.2- £11.8 billion in the UK (Ride et al., 2020). These statistics suggest a need for cost-effective interventions that increase access and reduce relapse amongst those with severe mental disorders.

Bipolar disorder (BD) is known as one of the top 10 causes of disability worldwide (Whiteford et al., 2015b). Bipolar disorder is a complex mood disorder that is often characterised by depressive and manic episodes (McIntyre & Calabrese, 2019).

Bipolar disorder is one of the UK's most diagnosed disorders (Iacobucci, 2022), with it affecting approximately 1 in 50 people, thus 1.3 million people across the UK (NHS Digital,

2014), compared to schizophrenia, which affects fewer than 1 in 100 people in the UK (Royal College of Psychiatrists, 2015).

Stigma is considered one of the most challenging societal issues for people with bipolar disorder (Sharma et al., 2017). Stigma, alongside the impact of BD leads to a further reduction in quality of life and isolation (Latifian et al., 2023). Self-stigma, where an individual internalises external stigma (Corrigan et al., 2010), can also negatively influence an individual's help-seeking behaviours (Eisenberg et al., 2009) and increase symptom severity and relapse rates (Drapalski et al., 2013).

Relapse rates are high, with approximately 73% of people diagnosed with bipolar disorder relapsing within five years (Sajatovic, 2005). Whilst pharmacological interventions are suggested in the first instance (Shah et al., 2017), psychoeducation, evidence-based treatment, and ongoing clinical support are identified as important clinical needs for patients with bipolar disorder (Fountoulakis et al., 2017). Despite bipolar disorder being one of the most common causes of disability (Whiteford et al., 2015), this group remains under-researched, particularly compared to other serious mental disorders. Therefore, the specific needs of those with bipolar disorder are often overlooked by UK policymakers and services (Geddes, 2006).

1.2.Interventions for people with bipolar disorder

Psychological interventions that are specifically designed for those with bipolar disorder are widely recommended for the assessment and management of bipolar disorder (NICE, 2022). Most studies have explored the effectiveness of CBT and psychoeducation for bipolar disorder and have found promising results. CBT strategies aim to target the cognitive, affective, and behavioural symptoms that are associated with low and high mood states in bipolar disorder (Lam, 2003).

Studies have reported fewer relapses and a reduction in depressive symptoms following 12-20 CBT sessions (Ball et al., 2006; Lam et al., 2005). Of the few studies that have explored the effectiveness of group interventions for bipolar disorder, longer-term effectiveness has been reported. One hundred and twenty participants who attended 21 weekly psychoeducational groups reported lower relapse rates, which remained low at five-year follow-ups (Colom et al., 2009). Two studies comparing group CBT combined with pharmacotherapy versus pharmacotherapy alone as the control group found that the intervention groups reported better quality of life, reduced manic and depressive symptoms and fewer mood changes (Costa et al., 2011; Patelis-Siotis et al., 2001). Group adherence was also high, as 93% of individuals completed the group therapy (Costa et al., 2011).

These findings highlight that psychological interventions lead to promising outcomes for people with bipolar disorder, with more favourable findings reported from group studies. More recent large-scale meta-analyses have reported favourable outcomes for group-based randomised controlled trials that found reduced relapse rates and improved symptoms over time (Rabelo et al., 2021).

1.3.The need for remote therapy- increasing access.

Symptoms associated with bipolar disorder, such as fluctuations in mood and disturbances in functioning (Marwaha et al., 2013), can make it difficult to access mental health care, particularly if these systems are difficult to access and fragmented (Morden et al., 2009).

The Bipolar Commission advocates for a specialist-led pathway for people with BD, that offers psychoeducation, continuous care, and easier access to help combat some of the challenges people face in accessing services (Bipolar UK, 2022).

Other recognised challenges, such as physical disabilities, employment, childcare responsibilities, and social restraints, can make it difficult to attend face-to-face appointments (Bee et al., 2008). Findings suggest that unemployment is one of the largest factors for disengaging with therapy due to the financial burden of attending therapy (Seidler et al., 2021). However, employment also poses a challenge, as those in employment may find it difficult to take time off work to attend their appointments (Neal et al., 2005).

Existing literature highlights a disparity between people from ethnically marginalised groups and white ethnic groups accessing and adhering to face-to-face therapy (Grey et al., 2013). A large-scale study completed in South London, UK, reported that ethnically marginalised people (including Black and Asian groups) were less likely to access psychological interventions (Harwood et al., 2023).

Remote interventions may offer an opportunity to reduce some of the disparity in access to mental health services for marginalised groups. Recent evidence found that individuals from Indian, Chinese, and African backgrounds were more likely to access online counselling via videoconferencing platforms compared to their white counterparts (Patel et al., 2022). The findings suggest that those from marginalised groups face challenges in accessing mental healthcare, and offering a remote videoconferencing option may make therapy more accessible.

1.4. Remote therapy for people with mental illnesses

Several national lockdowns were implemented in the UK in response to the COVID-19 pandemic, which restricted people's ability to socialise, attend appointments and work (Blake et al., 2020). Given the limited availability of face-to-face appointments and the increased need for psychological support that the pandemic created (Cataldo et al., 2021), services adapted to

this need by offering remote therapy. Many services have now incorporated remote therapy as part of routine practice post-pandemic (Probst et al., 2020).

Despite this change, there is limited evidence on whether service users with severe mental disorders consider virtual therapy feasible or acceptable (Lecomte et al., 2021). Studies have mostly focused on recovery rates amongst those with common mental disorders such as anxiety and depression (Kendrick & Pilling, 2012) and have reported promising outcomes for the use of digital therapy and improvement for depressive and anxious symptoms (Nguyen et al., 2022).

Remote therapy has been shown to be effective across different demographic groups, such as children and adolescents (Stasiak et al., 2016) and postpartum women (Lau et al., 2017); intellectual disabilities (Blocksidge et al., 2023); and ethnically minoritised groups (Jonassaint et al., 2020). Most of the literature explores the effectiveness of virtually-delivered CBT, as CBT is the most frequently studied therapy compared to all evidence-based psychotherapies (Cook et al., 2017).

A large 7-year trial that included over 20,000 patients diagnosed with bipolar disorder reported a reduction in anxiety and depressive symptoms and were highly satisfied with remote CBT interventions (Nielssen et al., 2023).

Additional findings have highlighted other important outcomes from remote therapy, some of which include online therapy being considered more accessible due to the reduction in time spent travelling (Goetter et al., 2022), not needing to take time off from work (Aronowitz et al., 2021) and removing the burden of arranging childcare (Lockard et al., 2022). The need for offering remote therapy for people diagnosed with bipolar disorder is attractive, as currently, less than 50% of those with a BD diagnosis worldwide are accessing therapy (Merikangas et al., 2011b).

1.5. Remote group therapy

COVID-19 impacted staffing levels and led to resources being further stretched within the NHS (Cudmore & McGrath, 2022). Secondary mental healthcare services were understaffed and received an influx of referrals, which increased waiting times for service users to be seen, compromising the quality of care in the UK (Cudmore & McGrath, 2022). Insufficient mental healthcare professionals impedes access to and quality interventions (Alvidrez & Azocar, 1999). Guidelines recommend specific, manualised psychological interventions for people with bipolar disorder (NICE, 2022). Group therapy has been shown to be as acceptable and effective as individual psychological interventions for the treatment of bipolar disorder (Zettle & Herring, 1995).

Group therapy is recognised for addressing staff shortages and increasing access (Whittingham et al., 2021). Group therapy has been effective and validated across the lifespan (Barlow, 2008) and for a range of severe mental illnesses (Marmarosh et al., 2020). Additionally, group therapy is cost-effective, as fewer therapists can offer interventions to more people at any one time (McCrone et al., 2005). Group therapy has been shown to be as effective as individual therapy (McRoberts et al., 1998), with increasing evidence suggesting that group therapy is effective in reducing anxiety and depression (Barkowski et al., 2020; McDermut et al., 2001).

While several studies have highlighted the advantages of group therapies from an economic and efficiency perspective, it's important to note that group therapies also include therapeutic processes exclusive to group therapy, which are considered key in supporting individuals' recovery (Yalom, 1995).

‘Processes’ within group therapy include the relationship that takes place between group members, facilitators, and individuals within a group environment (Yalom & Crouch, 1990).

Table 1.

Group processes (Yalom, 1995)

Therapeutic factors	Description
Factor 1: Infusion of hope	Group members inspire others with their journey and recovery
Factor 2: Universality	Individuals share their experiences and feelings which can reduce isolation and validate experiences of others
Factor 3: Information/guidance	Individuals share information about their course of illness
Factor 4: Altruism	Group members can help each other and experience 'giving' to others
Factor 5: Corrective recapitulation of the primary family group	Individuals may view group members as family members allowing for previous strained relationships to heal
Factor 6: Development of socialisation techniques	Allows members to learn and test new ways of interacting
Factor 7: Imitative behaviours	Members imitate others by observing their communication and problem-solving behaviours
Factor 8: Interpersonal hearing	Group members learn the value of relationships and secure attachments
Factor 9: Group cohesiveness	There is a sense of group solidarity and support amongst group members. This is considered a vital factor in group therapy
Factor 10: Catharsis	Involves sharing strong emotions and lastly
Factor 11: Existential factors	Involves sharing and understanding the grief and realities of life through developing trust, strong relationships, and hope through others (Rusu & Davis, 2022)

A small-scale face-to-face study exploring the efficacy of compassionate focused group therapy, involving 10 participants diagnosed with bipolar disorder reported positive group dynamics (Gilbert et al., 2022). Group members acknowledged that they were able to develop significant, pro-social and supportive relationships with other group members, which supported their engagement in challenging conversations with others outside the group. Other members expressed gratitude for hearing others with a similar diagnosis speak about their challenges, which helped them reduce shame and feelings of self-isolation (Gilbert et al., 2022). These findings illustrate how group therapy can increase feelings of normalisation, facilitate socialisation, and increase support through both group facilitators and other group participants, which can reduce feelings of isolation (Lecomte et al., 2021).

The processes that are exclusively offered by group therapy may be valuable for those diagnosed with bipolar disorder, given that this group are most likely to be stigmatised (Lim et al., 2004), isolated (Latifian et al., 2022) and socially dysfunctional (Castanho de Almeida Rocca et al., 2008).

Over the last two decades, computer-aided technology has emerged, which has increased opportunities for therapy in real-time, which can take place anywhere in the world (Smith & Senior, 2001). Videoconferencing is a platform that offers therapy that is closest to in-person treatment (Cason, 2017). Videoconferencing allows therapists and clients to engage in therapy via laptops, tablets, and phones without needing to be in the same room (Muir et al., 2020). Thus, offering a remote group delivered via a videoconferencing platform can make therapy more accessible to a wider population.

A recent study exploring the feasibility and acceptability of group therapy delivered via Zoom to those with a diagnosis of psychosis found promising outcomes. This pilot study, which recruited 14 patients with early psychosis who lived in remote areas or were confined during

the pandemic, was offered 24 online CBT groups. Service users reported reduced symptoms at a similar rate to face-to-face interventions, had high attendance rates, and found the groups feasible despite a few challenges with connectivity (Lecomte et al., 2021).

Other emerging evidence of the benefits of online group-based therapy has reported convenience and better accessibility (Niles et al., 2012) and reduced emotional distress in patients with cancer (Lleras de Frutos et al., 2020).

Therapists who have facilitated therapy via videoconferencing platforms reported that remote therapy enabled patients to emotionally express themselves, likely due to the disinhibition that online platforms can create (Laczkovics et al., 2023). Suler, (2004) named this phenomenon the 'online disinhibition effect', whereby online patients may disclose more than they would in person due to factors such as minimisation of authority, thus reducing the power imbalance that may be present between patients and therapists.

Despite the recognised benefits of group therapy delivered remotely to knowledge, there are no studies that explore the use of remote group therapy for people with bipolar disorder. The changeable symptoms that are experienced in BD (Kong et al., 2022) can impact accessibility, thus leading to exclusion from psychological interventions; this illustrates the importance of exploring new, innovative methods of offering therapy to this group to help reduce these barriers in accessing care.

Most of the published studies have focused on group or one-to-one benefits of videoconferencing therapy for eating disorders, veterans, depression, and anxiety disorders (Autumn et al., 2012). It is unclear how people with bipolar disorder perceive online group interventions despite the increasing number of trials exploring the use of videoconferencing therapy for mental disorders (Autumn et al., 2012). There is also a lack of literature exploring group process factors online and how other important aspects of clinical work, such as risk

management, engagement and bonding, unfold and are managed during online group therapy, despite promising findings for online 1:1 therapy (Simpson & Reid, 2014).

Therefore, this study will explore people with bipolar disorders' perspectives and descriptions of online group CBT therapy, with a focus on the online format of the groups rather than the content of the groups.

The online group that was offered to those with a diagnosis of bipolar disorder at the specialist service is based on an approved, manualised CBT group that previously ran face-to-face. Due to the COVID-19 pandemic, the service adapted their face-to-face groups to be delivered remotely via Zoom. This ensured that people with bipolar disorder were still able to access specialised mental health care during the pandemic.

As there is no research exploring people with BD perspectives of online group interventions, this study will explore whether the online groups were considered accessible and useable and how the group adherence, processes and impact of the online groups are described. This will be understood by exploring participants' experiences, perceptions, ideas, and opinions of the online group-based CBT intervention using a semi-structured interview. This study forms a qualitative part of a larger mixed-methods feasibility study, exploring the feasibility and acceptability of online interventions for people with bipolar disorder.

The findings will address a gap in the literature; to our knowledge, this is the first study exploring the perception of online group therapy among people with BD.

2. Methodology

2.1.Design

This qualitative study specifically focuses on participants' descriptions of their experiences, opinions, and ideas about the online CBT group intervention for people with bipolar disorder. HRA approval was granted in April 2021 and sponsored by the Mental Health NHS Trust (appendix 1). Local NHS R&D approval (appendix 2) and University data management approval (appendix 3) were granted shortly after the HRA approval. Previous research exploring the effectiveness of therapy delivered via videoconferencing platforms has usefully implemented semi-structured interviews with patients to understand feasibility and acceptability (Kysely et al., 2020; Moeller et al., 2022). Therefore, qualitative, semi-structured interviews were used to understand individuals' feedback of the online groups in detail and transcribed verbatim. Transcripts were anonymised and transferred to the software NVivo to begin coding, using Reflexive Thematic Analysis (RTA; Braun & Clarke, 2021).

2.2. Ontology

Understanding the assumptions underpinning methodological approaches is essential to recognising the impact on decision and sense-making processes (Sullivan et al., 2019). This study adopted a critical realist approach since it suggests an individual's perception of reality is subjective, and reality differs from person to person (Fryer, 2022). Reality is influenced by senses, objects, and the individual's perspective of the phenomena (Crotty, 2020). Therefore, there are multiple realities, and no single reality can exist since individuals are driven by their subjective perceptions (Frowe, 2001). This approach influenced this research, as whilst all group participants who were interviewed had completed online group therapy, there was an understanding that their perception of online group therapy would differ. Furthermore, this approach aims to explore how an individual thinks and perceives, and this study sought to understand individuals' perceptions, views, experiences, and ideas. Therefore, this approach allows for exploring multiple truths instead of searching for a singular truth.

2.3. Epistemology

Epistemological assumptions refer to identifying and making sense of knowledge (Braun & Clarke, 2013). As a critical realist ontological stance was adopted, there was an understanding that participants' perceptions, views, and ideas of online group therapy would differ; the analytical process also required a similar approach. A constructivist position suggests that understanding different experiences allows you to learn new perspectives about the world (Sullivan et al., 2019). As this study set out to understand different people’s perceptions, experiences, and ideas of online group therapy, it was essential to approach the data in a way

that allowed for differences to surface. A constructivist position was adopted to allow peoples' views, opinions, and experiences to be shared and considered. This is why a positivist approach was not adopted, as this would have influenced the data to be interpreted objectively, assuming that the data is factual and that there is a correct or incorrect position (Park et al., 2020).

A critical realist and constructivist position supported me in refining the research question and process, allowing me to focus on the knowledge I wanted to learn and share from the data collected. These positions allowed me to address the following research questions:

1) What are people with BD perspectives, opinions, and experiences of the online groups?
2) How do people with BD perceive the accessibility and useability of the online groups?
3) What group processes were described during online group therapy?

2.4. Reflexivity

Qualitative researchers are encouraged to understand how subjectivity influences their analytical position through reflexivity (Olmos-Vega et al., 2023). Reflexivity involves a continuous practice of self-critique, revaluation, and appraisal of how the individual's subjectivity has influenced the research process, including generating research questions and analysing and reporting data (Olmos-Vega et al., 2023). This practice includes specifically reflecting on personal experiences, sociodemographic background, opinions, and social graces (sex, race, etc) and how this may influence the research process (Finlay, 2002). Narrative autobiography, which can be in the form of a journal, includes noting specific reactions to the data, reflecting on their background and personal characteristics, and exploring how this may shape the results (Koopman et al., 2020). Therefore, a journaling method was adhered to throughout this research process, documenting reactions, thinking, and sense-making that incorporated my own views, experiences, and background that may have influenced this research and discussed within supervision (appendix 4).

2.5. Materials

The materials included a topic guide (appendix 5), which comprised the questions and prompts for the semi-structured interview. Additionally, the interviewer and interviewee needed access to a device and Microsoft Teams to complete the online interviews. A password-protected spreadsheet was electronically stored, including the names of the service users who had agreed to be contacted for research purposes. This facilitated keeping track of participants and anonymised participant numbers once the interviews were completed.

2.6. Semi-structured interviews

Semi-structured interviews were considered an appropriate tool for developing a detailed understanding of the participants' perspectives and opinions of the online therapy groups, as this has been successfully used in previous qualitative studies (Moeller et al., 2022). An interview guide (appendix 5) was developed alongside a consultant clinical psychologist with expertise in bipolar disorder and an expert by experience researcher. The topic guide included a total of 6 broad questions, such as “Can you tell me about your overall experience of the online group sessions?” and the follow-up prompts included “What did you find useful/ Not useful and why? What worked well remotely, what did not work so well? What did you like? What did you not like?”. The questions and prompts were developed to allow the participant to share their opinions, ideas, and experiences and to provide an opportunity to expand and clarify specific points where possible.

2.7. Procedure

Participants who agreed to be contacted for research during their initial suitability assessment before enrolling on the group programme were contacted. Participants were provided with an information sheet over email (appendix 6). The information sheet included details about the study, the interview process, confidentiality, data storage, and the participant’s right to withdraw at any time. Those who agreed to participate in the study completed a consent form (appendix 7) outlining their consent. The videoconferencing platform MS Teams was used to conduct interviews as this platform is approved by the hosting NHS Trust. All transcripts were anonymised, and any names of facilitators or group members mentioned within the transcripts were replaced with pseudonyms. Transcripts were stored in a password-protected folder on

NHS computers per the Trust's governance policy; all participants were debriefed at the end of the interviews.

2.8. Participants

Sixteen individuals who had completed the programme and agreed to be contacted for research during their initial suitability assessment for the service were contacted to participate in this study. Of these, three people were unreachable. Therefore, 13 individuals agreed and participated in the study. Among these were nine males and four females, all between the ages of 18-65, who had been diagnosed with type 1 or 2 bipolar disorder. They had attended at least 11 of 13 sessions to be deemed suitable to participate. Twelve participants identified as White British and one as a Black British African. Research has identified that approximately 12 participants are ideal for a reflexive thematic analysis, as findings demonstrated that enough codes were generated within 12 interview transcripts to develop meaningful themes in research (Ando et al., 2014). Therefore, the aim was to recruit 12 participants, which was surpassed by an additional participant who consented.

2.9. Pilot interview

A pilot interview was conducted with the first participant to test the technical features available on MS Teams, such as audio recording and transcription, and to ensure that the interview questions and prompts supported the study's aims. This transcript and recording were then reviewed, which allowed me to refine the prompt questions and receive more detailed feedback from service users. For example, specific prompts such as “What worked well remotely and what did not work so well?” when asking about the participant's overall group experience allowed for more detailed feedback on specific topics related to certain components of online

group therapy. As the initial participant provided in-depth feedback on their experience and opinions of the online group therapy, their transcript was included in the final analysis.

2.10. Interviews

Participants completed a consent form to take part in the research. They were also allowed to ask any questions about the research process. All participants were given a brief introduction and background to the research question, which allowed for the development of rapport before recording. Recording and transcription were turned on, and the interview began using the semi-structured interview schedule for guidance.

Interviews began in September 2022; the last participant was interviewed in October 2023. Each interview lasted between 1 and 1.5 hours, and all participants were reimbursed £20 for their time after they completed the reimbursement form (appendix 8).

2.11. The intervention

Participants completed a manualised cognitive behavioural intervention for bipolar disorder, which is followed by relapse prevention work. It is a mood management intervention targeted to those with a diagnosis of bipolar disorder type 1 and 2, cyclothymia and schizoaffective disorder.

The CBT group intervention received was treatment as usual within the specialist service and had been adapted during 2020 due to COVID-19 to be delivered online via Zoom. The online group consists of a protocol-driven 13-week CBT group, which is then followed by approximately 6-8 individual relapse prevention sessions in which service users develop their own 'staying well plan' to identify protective factors, high-risk situations, early

warning signs of mood change reducing the chance of relapse. Both group and individual sessions were delivered via Zoom. This qualitative study exploring the experience and perception of online group therapy is a smaller study that fits within a larger mixed-methods trial. Other studies within this trial include a quantitative analysis exploring the feasibility and acceptability of online group therapy. The feasibility and acceptability of the quantitative study were assessed by measuring recruitment into the study and groups, intervention completion (both group and 1:1's), outcome measure completion and to get an indication of what measures could be utilised to investigate symptom change over time and give an indication of power for a larger trial. All group members routinely completed outcome measures before the start of the groups. The other qualitative study uses a semi-structured interview like this current study to explore people's experiences and perceptions of the 1:1 online relapse prevention intervention. This thesis will only focus on the group element of the larger intervention.

3. Analysis

3.1.Reflexive thematic analysis

Reflexive Thematic Analysis (RTA) (Braun & Clarke, 2019) was used to analyse the qualitative data in this study. Braun & Clarke, (2022) state that researchers construct themes through interpretive and analytical engagement with data rather than the idea of themes emerging or appearing within data. RTA recognises that the codes represent the researcher's perception and understanding of the data (Braun & Clarke, 2019). There is no expectation that two researchers would generate the same codes for the same transcript, so does not expect ‘correct’ coding (Byrne, 2022). This analytical approach aligns with the critical realist ontological stance, as there is a common understanding that a reality exists which is reflected in participants’ perception of the groups, but their perspective, understanding and interpretation of that may vary. The RTA method was chosen because I was aware of the active engagement that would be involved in analysing the data, which may be influenced by my understanding of the current literature and personal assumptions. Additionally, the RTA method does not seek to make claims about the reality of a phenomenon but rather understand individuals' meaning and sense-making of specific phenomena (Byrne, 2022). This method seemed most appropriate to analyse the data, as it aligned with the study's aims to understand the perception and descriptions of online group therapy. A predominately inductive approach was used in analysing the data; therefore, the generated codes represented the meaning and sense-making communicated by participants (Braun & Clarke, 2013). Braun & Clarke, (2013, 2019, 2021) proposed six phases as part of the RTA process. This does not suggest a linear, stage-by-stage process; there is an expectation that this process is

approached fluidly as the researcher may go back and forth between the six phases as necessary (Braun & Clarke, 2021) – see Table 2.

Table 2.

Six phases of RTA analysis (Braun & Clarke, 2006)

Phase	Process
Phase 1: Familiarisation of the data	Familiarisation involves reading and re-reading the transcripts and becoming familiar with the data (Byrne, 2022). As the transcripts were transcribed automatically using the MS Teams transcription facility, I read and re-read the transcribed scripts to help me familiarise myself with them. I also listened to the audio recordings while re-reading the transcript to ensure the transcription was accurate. During this process, I wrote down my initial ideas and understanding of the data, which helped generate specific questions and engage more critically during the coding process.
Phase 2: Generating initial codes	The NVivo software was used to code the transcripts and to attend to and manage systematic data (Braun & Clarke, 2019). This software allowed for codes to be noted in the side margin and either generated new or re-assigned codes across the transcripts (appendix 9). It is recommended to approach each transcript systematically and identify parts of the data that may develop into themes (Braun & Clarke, 2012); thus, using this software allowed me to keep track of interesting codes that may later develop into themes that would answer the study questions. All segments within the transcripts that were deemed interesting and potentially contributed to answering the research question were coded, either semantically or latently. As coding continued and my analytic insight developed, I went back to earlier transcripts to re-code, which reflected my evolving understanding and perspectives of later transcripts. This allowed for more nuanced coding, which captured a deeper insight into the text. This also ensured that specific segments received their own unique codes and that early codes were not allocated to multiple meanings, as this may have led to losing important meanings that would contribute to answering the research questions. Supervision and guidance were sought to make sense of types of coding (latent vs semantic) and reviewing codes. I also sought supervision from an expert by experience and presented my initial codes to them, to refine my coding and approach.

Phase 3: Generating themes	This phase began once all transcripts were coded. The focus during this phase shifts from interpreting data at an individual transcript level to accumulating codes to understand and generate wider meanings across the datasets (Byrne, 2022). Codes with similar concepts or features were grouped together, along with quotes, to help narrow down and collapse codes to help generate candidate themes (Braun & Clarke, 2021). These candidate themes were further reviewed to explore whether a shared pattern exists across all datasets, for example, exploring whether something has been raised once by one participant or whether an idea/opinion is shared by multiple participants across datasets. A thematic map was created, which paired codes to initial themes and subthemes (Braun & Clarke, 2012).
Phase 4: Reviewing potential themes	In this phase, I reviewed and developed the candidate themes identified in phase 3. Here, the focus was placed on whether there was enough data for a theme, combining all quotes that were related to a specific theme, exploring whether subthemes exist and exploring whether other themes exist that may have been missed during the earlier phases (Braun & Clarke, 2021). Supervision was helpful in thinking about candidate themes and potential stories they tell.
Phase 5: Defining themes	The final refinement of themes took place during this phase, with a focus on ensuring that the themes were reflective of the data, titles captured the essence of the data and reviewing whether subthemes exist within larger themes (Braun & Clarke, 2021). Here, supervision was particularly helpful in eliminating/including idea's and producing a more concrete sense of themes. Supervision was also sought to review whether subthemes existed within data, to present quotes and engage in discussions around their meanings.
Phase 6: Producing the report.	Before writing up the results, I first decided in which order the themes would be presented. The analysis and discussion session were then completed based on the final themes that were developed (Braun & Clarke, 2021).

4. Findings

Three themes were derived from the thematic analysis, which include ‘building online connections and community’, which describes participants' experiences of forming bonds with people online. It also includes people’s narratives on how hope was developed through these communications and how isolation was reduced. The second theme, ‘Facilitating inclusivity through an online platform,’ includes people’s descriptions of how they could access the online groups despite physical and mental challenges, the diversity acknowledged within the groups and the financial relief the online groups afforded. The final theme ‘Facilitating control, power, and ownership through the online medium’ consists of participants’ descriptions of how they felt empowered to make treatment decisions, the balance of power dynamics that the online platform allowed for and the ability to take control of their own and others welfare by privately contacting the facilitator to alert them about their mental health and concerns about others. An in-depth account of the participants' narratives are below.

4.1.Theme 1. Building online connections and community

This theme captures participants' sense of support, connectedness, and an opportunity to learn from those who share similar experiences of bipolar disorder online. Here, value and importance are placed on meeting with similar people and sharing experiences. The quotes suggest that creating bonds and connections online is possible, which helps individuals feel less isolated and develop hope. The descriptions suggest that meeting regularly online allowed them to build connections with people with similar difficulties and develop a sense of community where support and kindness were expressed. It also captures different ways this was expressed, either by problem-solving as a group or by encouraging one another more generally.

The sense of community was reflected by Participant 7, who indicated that meeting people with similar experiences allowed them to feel validated, suggesting the importance of building an online community and that it is possible to create a sense of belonging and shared understanding among participants in an online forum.

> "It was actually quite nice to feel, uh, not strange, you know what I mean? Like being able to talk to everybody who's in the same boat as you obviously, like when you talk to people that aren't diagnosed with bipolar, and they just don't get what you are on about, and they look at you like ******* hell you're weird. But if you talk to somebody who's equally weird as you and literally understands you, it just feels different." (P7, 788-796).

The group connections appear to have contributed to group members embarking on a shared journey:

> "So, there was an example where someone, after a week or two, went and told a close friend that they had bipolar disorder, and their friend didn't talk to them for like 3 days. So, this person was very sad and paranoid in the group, and we all helped her with advice and alternative explanations for why her friend hadn't replied. In the end, the friend did reply to her, and it was fine, but the group was supportive towards her, and we checked in on her the following week. There was quite a bit of stuff like that" (P4, 873-878).

This suggests that enough trust had been built remotely to facilitate a distressed participant in sharing their worries, and the group members responded to that worry with support and reassurance. This support was offered across a few sessions, suggesting that group members had kept this participant's situation in mind when away from the group and checked in with them during the group the following week.

Many other quotes illustrated the value of support and encouragement found within online groups:

> "Literally, everyone was nice to each other, supportive, and, uh, supportive. I'd say people were patient and kind to each other, all of that, like encouraging people to speak, encouraging confidence, and stuff like that. So yeah, yeah. It's like a really supportive group." (P8, 811-813).

> "They were lovely. So I always found them supportive. I could be open and honest with them" (P4, 887).

> "I think we were all really supportive, so I never once felt that anybody was judging people or being unkind about other people, I think everyone was pretty supportive of each other really" (P5, 954- 957).

This highlights how kindness and support were displayed and received through an online platform. The group members described that they acknowledged if someone lacked the confidence to participate in the group despite the group being online and were able to encourage other group members to participate in the group.

There was discussion of a gradual development of a bond created within the online group:

> "It was good, you know like I thought they were nice people, and we did seem to form a kind of bond, especially towards the end. I think we got to know each other quite well towards the end of the course" (P4, 815-817).

The mention of "towards the end" indicates that group members created connections with one another and invested in a shared journey. There is also suggestion that the online platform facilitated connections without excluding group members:

> "I think that because it was online, people were not getting into their own little cliques. I think that can happen in person and could stop other people from mixing and getting to know each other" (P8, 827-830).

Another person reflected on how bonds were developed and maintained more easily on the online platform:

> "I think if groups were face-to-face and group members didn't attend each week, that would have influenced the group because it would have been harder to bond with people. So, I think more people attended each week because the groups were online" (P3, 945-949).

> “The breakout room I really enjoyed, like we had some really good chats in there some really good conversations and really got to know people well” (P7, 288-290)

The online platform appears to have facilitated regular attendance, which made it easier to form connections with the group members compared to less regular attendance in person. Another suggests that the breakdown room, a function available on Zoom, encouraged conversations and getting to know other group members better.

People described feelings of hope and a reduction in isolation that developed from the community and connections from the online group:

> “And going through the course and then the online group gave me hope. It gave me hope that I could. I could, you know, live my life with bipolar and, you know, manage” (P2, 372-373).
>
> “I used to feel so isolated. I didn’t know anyone with bipolar, I used to feel kind of ashamed before doing this online group” (P2, 350-531).
>
> “It gave me hope for me to carry on and get better” (P3,735).
>
> So it was good to get to all of that in one place, like a community or knowing that someone else's out there, you're not on your own (P3, 544-546).

Here, we can see that some people attending the group appeared to be of particular benefit from connecting with others with BD to reduce shame and isolation. This, alongside the gentle support and kindness acknowledged earlier in the theme, emphasises the group's utility for ameliorating shame and stigma.

This theme demonstrates how the group developed meaningful connections through the online group platform, which appeared to facilitate helpful therapeutic group processes during

sessions. The bonds and connections people described seem to be important in developing a sense of hope in managing BD and reducing feelings of isolation due to the sense of togetherness developed during the groups.

4.2.Theme 2. Facilitating inclusivity through an online platform

This theme captures the recognition of the importance of diversity within groups, including experiences, ages, and backgrounds, and how the online platform facilitated this. Ease of access appeared key for this, particularly for those who struggled with the symptoms of bipolar disorder and other co-morbidities that may otherwise restrict their access to therapy. Individuals described the practicalities of the online platform that appeared to facilitate attendance, such as not needing to pay for travel or take time off work which makes the online groups more inclusive for all.

Participants identified how the online platform allowed access to the online groups despite struggling with mood changes such as depression, physical health, or neurological conditions:

> "I'm autistic as well, and I've got ADHD, so the idea of having to be in a classroom or wherever for like 2 hours in a group setting with other people that I don't know having to focus like in person I found that thought, in and of itself, quite stressful, so finding out that actually it was gonna be online was a huge relief for me because it being at home and being in an environment that has less distractions allows me to an extent to have some sort of kind of control over the situation and join the group" (P6, 179-187).

Some participants reflected on how despite not wanting to join, they were able to encourage themselves to attend the group because it did not require much effort to join:

> "I suppose because some days I felt really bad in myself, and I also suffered chronic pain I didn't feel like doing it, but I felt that I should push myself to do it, and because all I had to do was click on a link, I was able to join" (P1, 414-416).

> “Online was helpful in the fact that because I'm on all the medication and I can get really tired and not want to do therapy, I was able to join online and do all the sessions” (P1, 137-140).

Similarly, another participant shared how their symptoms were difficult to manage, which may have led them not to attend the groups, but they managed to persuade themselves to attend due to the ease of attending:

> “I mean, there were a couple of days I went through a bad period, I was just in bits, but because I could go online, I just said, alright, pull yourself together. Let's get this done. I would just have rang up and said I'm not coming if i had to go in in person” (P4, 747-749).

More specifically, the ease of joining online, particularly when feeling low in mood, was reflected upon:

> “The other thing, uh, the other advantage of it being online, of course, is that bipolar people tend to get very depressed at times. And if it's online, it's much easier to join, even if you're very depressed” (P10, 329-330).

These quotes illustrate clearly how difficult it may be for people with bipolar disorder and fluctuating mood states, co-morbidities, and other conditions to access therapy, and how the online platform facilitated attendance for these people who, may have otherwise not been able to access group therapy.

Other participants reflected on the diversity and differences they experienced within the groups, suggesting that the online platform allowed people from different backgrounds, ages, and races to join the group and that people had an opportunity to meet with different people than they would normally meet because it was online:

> “I think it was really quite good. We had people from all different walks of life, different ages, genders, races, and, you know, it was a broad spectrum. And with it being online, I think that would have impacted the diversity in the different types of people in the group. Like, as the groups were during the day, people would have had to go to work, so I might not have met those people otherwise” (P5, 941-947).

> *“*It was a good mix because there were different people from different places, and they had a lot of different backgrounds and people engaging at different levels that may have been comfortable for them” (P3, 1390-1393).

> *“*You get a really mixed bag of participants, and some were living very challenging lives; I wonder if I would have met them if these groups were in person?” (P9, 349-351).

One participant reflected on how the diversity impacted their perception of BD *“but also, the group was so diverse. It showed me that bipolar is a far-ranging illness”, (*P10, 250-251)

teaching them something new about the expansive nature of the condition.

Practicalities of the online platforms, which aided attendance, were a shared feature among many participants' stories. Some reflected on the challenges of finance and difficulties with travelling into the groups, which may have hindered their opportunities to access face-to-face group therapy:

> “I think at the beginning of the process, you try and commit to turning up every week for obvious reasons, but that's quite challenging. But of course, doing it remotely makes that easier, because I think if I needed to come in on a weekly basis, given everything else that was going on with travel and expenses, you know, I wouldn't have been able to join” (P9, 63-66).

> “[Location] is quite far from me, and it would have meant I would have to get a taxi, and so financially as well, like every time that I would have to go to an appointment, it would be about like 20 pounds out of my pocket, which obviously to some people isn't much money, but for me at the minute who hasn't got an income it is a lot of

money. Um, so having that kind of financial barrier removed was a relief" (P6, 189-193).

"I don't drive, so I would have had to get the bus or taxi to attend, which wouldn't have happened. So yeah, online is just better because it meant I actually attended" (P12, 149-150).

Furthermore, running the sessions online allowed people who were employed to access the groups:

"Oh yeah, it meant that I could just stop working, click on Zoom, and talk to people. I didn't have to actually go there, which was a big win for me. It would have taken time out of my working day to travel there, too" (P4, 374-376).

"Instead of having to take time to leave work and go to and come to a building for a session, it meant that I could just make sure I was arranged to be working from home and just be away from my computer for a couple of hours and then be able to go back very quickly. So it meant I was not missing as much work" (P3, 938-988).

"I think I was relieved a bit because it meant that I wouldn't have to travel every week. It meant that I would have less time out of my work as well because it would mean that I wouldn't have to deal with all of the travelling time that I would need to get to and from a place where I was meeting people. I could just go on the Zoom call and then come off it and start working immediately, which was nice and useful" (P10, 166-170).

This theme captures people's descriptions of how the online platform enabled attendance for those with a multitude of challenges, including finance, travel, and employment, but also reflects how people with bipolar disorder may face barriers in accessing face-to-face therapy due to the nature of the condition, which the online platform was perceived to ease. It also considers how people from different backgrounds could access and use the groups, which also benefited other group members' experience and learning within the online groups.

4.3.Theme 3. Facilitating control, power, and ownership through the online medium.

Participants described how they fostered a sense of power both within the groups and outside of groups, which helped them with decision-making and taking control of their treatment. The theme demonstrates how participants could take control and manage their risk and reach out to the facilitators to flag concerns about others within the groups.

A participant reflected on the power and status they held as a male member of the group and how this could have impacted the relationships within the group if they were face-to-face. They suggest that the online platform may have facilitated a power balance within the group, allowing for more equal power dynamics.

> "The other thing I'm conscious of is that I'm a male, so I will have a physical presence more than just the words you say or the words I say. It's unavoidable, sadly, that being a male you influence the room. That means that people might not feel so able or so comfortable around you, and the nice thing about online is that it removes all of that, right?" (P9, 566-569).

A few participants described how the online groups enabled them to make decisions for their own treatment. They were otherwise not actively involved in the decision-making process. They referred to taking back control and power within these medical conversations, wanting a more active role in deciding their course of treatment.

> "We had learnt kind of like a lot that isn't necessarily communicated to us in our kind of psychiatric appointments. In the past, where I've kind of felt, you know, I've been told, ohh no, your only option is this medication. And now I'm saying "no". That medication has caused me psychosis in the past. I don't feel comfortable taking it again" (P6, 366-369).

> “It allowed me to be heard and have a decision where I felt, yeah, more empowered. And it felt like. The treatment was instead of being dictated and kind of making me powerless in that sense, it allowed me to have kind of a more of a level playing field with my doctors and, it gave me kind of that reassurance that like, I actually do have some say in my treatment” (P6, 379-382).

One participant discussed how the ability to sign off and leave the group gave them more control over how much they wanted to share in the group and another participant discussed how being able to sign off and not share their reasons why with the wider group allowed them to look after their welfare.

> “It doesn't matter if you overshare, you know, because by the time you click the big red button in a couple of hours, I just disappear. I'm no longer part of your life. I wonder if that makes people feel more in control?” (P9, 557-560).

> “I was able to leave one of the groups because the topic about alcohol use triggered me. What was good is that I didn’t have to announce like, “OK, I’m going to leave" and then travel back home” (P12, 192-193).

A few participants suggested that the online platform enabled them to contact the facilitators in privacy.

> “I left one of the groups when I felt really upset. I messaged the facilitator and told him that I wanted to leave. He messaged me back privately and checked in with me” (P12, 696-687).

> “There were days when I just felt too low or too hyper, so I messaged the facilitators separately online and told them that I am struggling to sit here” (P7, 381-383).

These online functions allowed them to make decisions and take control of their own welfare, offering an element of flexibility and choice that is much more complex in face-to-face group settings.

Similarly, other participants reflected on the opportunity the online platform created to alert the facilitator about concerns about another group member:

> "It was easy just to send a private message to the facilitator to alert them about my concerns about another member. You know, just because you know you'd want perhaps to take someone into a corner, but you never know if that's gonna be possible so Yeah, it might actually have been harder to do face to face". They go on to state that this may have been harder to do in person, "It would have been kind of awkward ennit? you would have to put your hand up or pull him to the side in front of everybody yeah it would have been a bit awkward" (P7, 534- 539).

> "There were a few times where you can see a few people were a bit more anxious in themselves or potentially weren't quite as comfortable, you don't have all the attention on them, but also you can message one of the facilitators to check up on someone" (P3, 1464-1467).

These suggest that group members were able to take a more active role in managing their and others' welfare and risk by being able to contact the facilitators privately. The online platform seems to provide functions to meet some needs more easily than in face-to-face settings.

Overall, this theme captures participants' sense of empowerment and developing control to make decisions for themselves. They also recognised other people's mood states during the online groups and felt empowered to seek support from the facilitators to support themselves and their peers.

5. Discussion

A thematic qualitative analysis (RTA) (Braun & Clarke, 2006) method was used to analyse the interviews to understand participants' perceptions, experiences, views, and ideas of the online group CBT intervention. Participants reflected on and described their personal experiences and perceptions of the usability, adherence, accessibility, processes, usefulness, and impact of the online CBT groups. Overall, participants described their fondness for the online groups and shared their thoughts on the processes, practicalities, and personal influence following the groups.

Building online connections and community

The first theme, ‘Building online connections and community,’ highlighted that similar group processes occurred in the online group compared to those typically seen in face-to-face groups. Yalom, (1995) suggested several factors that occur in face-to-face group therapy that are vital to facilitate change within individuals. This study's results suggest similar processes occurred within the online groups. Participants reflected on how bonds were developed during the groups, suggesting that group cohesion was strong amongst people, as group members supported one another. Others reflected on the universality that occurred within the groups, whereby people were encouraged to share their experiences and feelings, which reduced isolation and increased feelings of validation. The sharing of information and guidance was paramount within the online groups, as people suggested that learning from other people’s experiences enabled them to learn new ways to manage their condition. It was evident that these connections led to people experiencing hope for their future, as many reflected on how the group interactions had instilled more positivity for their future, as they could form connections with people managing their condition. The findings suggest that similar group

processes occur within online groups, and these processes facilitate the reduction of isolation, the increase of hope, and the learning of new ways of managing their condition.

It was previously unclear whether Yalom's group processes unfold during online group therapy or whether these processes occur during face-to-face groups (Diefenbeck et al., 2014). However, these findings demonstrate that certain processes can also occur during online group therapy that are not exclusive to therapy in person. Additionally, findings illustrate that the online platform facilitates these connections and bonds in a way where people are not excluded from social groups, whereby all group participants connect and interact with one another without forming "cliques". Yalom's, (1995) earlier work on group psychotherapy focused on the interactional group processes within group therapy. Specifically, these groups were open-ended, experiential, and focused on the 'here and now'. Yalom, (1995) states that a relational framework, whereby group members develop relationships with one another, leads to an understanding of self and others, leading to change and growth. The group facilitator does not take a central role in these groups but rather supports the relational processes between members and does not initiate topics, processes, or discussions. The responsibility of the groups lies with the group members, as they are given the autonomy to guide discussions within the sessions. The 11 therapeutic factors emerged from ongoing observations of long-term psychotherapy groups and the specific processes between the group members' interactions (Yalom, 1995). The online CBT groups in this study relied on the facilitators to deliver structured content within a specific time frame (13 weeks), with overall responsibility to manage the group, including discussions and topics covered. This is different from the original work of Yalom, (1995), as the online CBT groups were more structured, psychoeducational, and skill-based and relied heavily on facilitators rather than group members. Despite group members having the opportunity to have discussions on specific topics and share personal experiences, this was assisted by the group facilitators. While group members had more autonomy in discussions and

topics within the original psychotherapy groups, the group members in the online group had more autonomy in deciding to stay or leave the groups and with whom and when they interacted. However, the results suggest that group members experienced many aspects of Yalom's 11 therapeutic factors, in particular universality, instillation of hope and altruism. This indicates that despite the therapeutic structure and goal of online CBT groups being different from the original psychotherapy groups, Yalom's therapeutic factors may still be operating in the online group interventions.

Evidence suggests that people with bipolar disorder find it difficult to form connections and, thus, are more likely to be isolated than the general population (Giacco, 2023). One in four people with BD are highly self-critical and experience shame (Shumet et al., 2021), which negatively impacts treatment adherence (Corrigan et al., 2014). This study suggests that online group therapy may offer an easier opportunity to develop connections, as meeting with people with similar experiences online can encourage people to continue attending online, reducing the isolation and shame that individuals experience through shared experiences and learning from others. This may also increase treatment adherence among people with BD, as the online groups may contribute to feelings of belonging, which otherwise are difficult to experience (Veseth et al., 2017).

Facilitating inclusivity through an online platform

The theme suggests that the online platform encouraged inclusion, as people from different backgrounds and those with co-morbidities could access the online groups. People in this study reflected that despite experiencing "low mood," they attended the groups, as the online platform enabled them to join, and they may have been less likely to join if the groups were in person.

Mental health services should be available and accessible to everyone irrespective of physical challenges, socioeconomic status, and ethnic group (Davidson, 2000). Despite this, some consider psychological interventions non-inclusive, as accessibility may be restricted due to not meeting service users' diverse needs (Pinto et al., 2023). The literature states that the impact of symptoms, time constraints, lack of financial means and the physical location of therapy can make it difficult for certain groups to access mental health care (Mohr et al., 2010). These inequalities have been recorded for several years, and despite changes in policies to promote inclusion, progress has been slow, and new, innovative approaches are necessary to address this growing issue (Bansal et al., 2022).

As the symptoms experienced with BD can impact adherence to therapy (Marwaha et al., 2013), online groups may offer a more accessible way of accessing therapy, as people with BD are better able to manage their symptoms and attend therapy from the comfort of their homes. At least 60% of people with BD have a comorbid physical or mental health condition (Rosenblat et al., 2023), making it challenging to access in-person therapy (Bee et al., 2008). However, the present study's findings suggest that people with additional challenges to BD can access the online groups. For example, those participants who described having neurological challenges and chronic pain were able to attend the groups as they were online, making the online groups more accessible and usable for those with additional needs. Some key features that supported access and usability appeared to be being able to join from the comfort of their homes and reducing stimuli, as they could join from a more sensory-controlled environment, compared to if they joined the group in person, which may have impacted their experience and usability of the groups.

Those in employment can find it difficult to access therapy (Neal et al., 2005); however, these online groups were favourable for working individuals. They described the ease of accessing the groups around their work schedule, as they did not have to take additional time off to

travel to a physical location. Up to 60% of individuals with BD are in employment (Marwaha et al., 2013), suggesting that offering online group therapy could make therapy accessible for up to 60% of people who are in employment, as they are more likely to access therapy via an online platform.

The elimination of travelling to a physical group was also attractive to those with lower financial means, as they described that the remote groups eased the financial burden associated with accessing face-to-face groups, making attendance and adherence possible.

Evidence continually highlights the disparity between people who access therapy, such as race (Grey et al., 2013), males (Sagar-Ouriaghli et al., 2019) and older adults (Wuthrich & Frei, 2015), suggesting minimal representation and access from diverse backgrounds. Participants acknowledged the diversity within the online groups, including people of various races and ages. Some reflected on how the online platform created an opportunity to meet with people from different backgrounds and learn from different experiences they may not have had if the groups were in person. These results provide initial evidence that indicates that online group therapies reduce barriers and increase accessibility for those from diverse backgrounds. They also indicate that group diversity is necessary, as it positively influences group members' learning and therapy experience.

Facilitating control, power, and ownership through the online medium

People described how they felt empowered to make decisions in their treatment and engage in conversations with clinicians. They also described being able to contact the facilitators privately to raise concerns for others or themselves, illustrating the control they possessed using the online platform.

People with BD want an active role in decision-making and call for more involvement in their treatment (Fisher et al., 2020). Joint treatment management empowers patients and improves health outcomes (Lorig, 2015). This was echoed in the findings from this study, whereby individuals felt more empowered to take an active role after the online groups. These findings suggest that the shared learning and education from the online groups fostered feelings of control and empowerment within individuals, who could share their opinions with their medical practitioners. These findings support those from Gilbert et al., (2022) who reported that group participants with BD felt more empowered to engage in challenging conversations regarding their care after completing a series of group sessions. However, this study's findings demonstrate that such empowerment can also be developed through accessing online groups and not only face-to-face groups.

Participants described being able to fully express themselves during groups, as they were aware that they could sign off from the online groups if they wanted to. This control that individuals recognised in being able to leave the group enabled them to regulate how much of themselves they wanted to share in the online groups. Therefore, an online disinhibition effect (Laczkovics et al., 2023) was evident in some participants, which enhanced their feelings of control and power and facilitated how much they decided to share within the online groups.

There is significant risk associated with BD (Bassett, 2010), and the fluctuating nature of the condition can make this difficult to identify and manage (Hofmann & Meyer, 2006). The responsibility of identifying and managing risk has mostly been allocated to mental health clinicians (Hautamäki, 2018). However, patients with BD have expressed that poor communication and therapeutic alliance are barriers to having more control in managing their own risk (Blixen et al., 2016) and have expressed a preference for taking an active role in self-risk management (Duffy et al., 2004). Participants described contacting facilitators privately using the private chat function to alert them about how they were feeling and also used the functions to bring attention to other members of the group whom they perceived as needing support. In this way, the online platform facilitated an opportunity for group users to take control in managing their own risk by reaching out to the facilitators and communicating their needs, which may have been difficult to do if the groups were face-to-face. These findings are promising as they demonstrate that people with BD can take more control in self-management online and seek support for themselves and others using an online platform.

6. Limitations

Diversity within the groups was a key factor raised within the 'inclusivity' theme. However, it is important to note that 12 out of 13 participants in this study identified as White British, and one identified as a Black British African male. The lack of diversity among the participants may limit the representativeness of these findings to a wider cohort. Therefore, it is important not to prioritise the views of this dominant population and acknowledge that people from other racial groups may not share similar opinions and experiences.

The findings indicated that online group therapy was accessible and alleviated the financial burden of travel for many. However, the study did not include interviews with individuals who could not access the online groups due to digital poverty or lack of digital literacy. Their perspectives on the accessibility and usability of online platforms for group therapy may differ significantly, underscoring the need for further exploration of this subject.

It's key to note that participants volunteered to participate in the interviews and may have been more engaged throughout the online group therapy. Nonetheless, the findings demonstrate in-depth, meaningful descriptions for those who had volunteered to participate in the research. All the participants who agreed to participate in this study were positive about online group therapy. However, the findings may not fully represent everyone's experiences of the groups, as those who agreed to take part may have done so due to their positive experiences and perceptions of the online CBT groups. There are, of course, potential limitations of holding groups online. One aspect not raised by participants that may be relevant includes potential differences in accurately perceiving the intentions of others due to the limitations of the online medium (e.g., accurate appraisal of emotions). Additionally,

having a physical space away from home may be perceived as helping to contain the therapeutic process. Doing work online means there is less of a boundary between ‘therapy’ and other aspects of life, which may make it more challenging to deal with any negative emotions that result from the group; for example, once you log out of the group, you are left in the same room, with the same feelings, with limited opportunity to speak to a facilitator for support. Another factor may be that it may be less feasible for therapists to use the ‘intersubjective space’ in therapy due to the difficulties, for example, in accessing body language. However, this may be less problematic as the group focused on overt content, such as skills and psychoeducation.

My assumptions may have been considered a potential source of bias; I had assumed that participants would view their interactions with others as a relationship and that the relationship would lead to additional benefits, such as a change in symptoms. To minimise this bias, I continuously engaged in reflexive journaling and used supervision to challenge these assumptions and develop clarity throughout the analytical process.

The findings from this study cannot be used to draw conclusions about whether online group therapy is effective. However, the aim of this study was to gain in-depth descriptions of people's experiences and perceptions of online group therapy instead.

7. Strengths

To knowledge, no studies have explored people with BD's perspectives and experiences of online group therapy. Most research has focused on the effectiveness of treatment with people diagnosed with depression, anxiety, PTSD, and psychosis (Autumn. et al., 2012; Lecomte et al., 2021). This study has allowed people with BD to share their novel insights and actively share their experiences and perceptions more widely. Findings may enhance professionals, policymakers, and the government's knowledge and understanding of alternative online group therapy to meet the needs of a population that otherwise remains underserved. As participants had experienced online group therapy in one service, within one NHS Trust, this limits the heterogeneity that may have surfaced if participants were interviewed from different services nationwide. Therefore, participants' unique experiences are understood in the context of one service, allowing future research to explore the specific mechanisms of how that service delivered online group therapy to learn from with a view to introducing it to other services.

Yardley's criteria (Yardley, 2000) were closely followed throughout the research process, such as reflexivity, supervision, engaging with a researcher with lived experience to help me develop my interview questions, and understanding how my position as a researcher may have imposed a power imbalance during interviews. Following Yardley's criteria can be assumed to increase credibility and confidence.

A key strength of using the RTA method is that detailed, in-depth descriptions of participants' experiences and perceptions were elicited to develop an understanding of what is meaningful to people with BD who accessed online group therapy.

8. Clinical implications and recommendations

The results illustrate how group processes and dynamics unfold during online groups and how patients can exert control and self-manage using online platforms (Simpson & Reid, 2014). These findings also demonstrate how people with BD perceive the online groups as more assessable and usable, as they eliminate the barriers and challenges to accessing therapy that have been documented previously. These findings also illustrate the benefits of developing innovative therapy for people with BD, particularly in line with the NHS's long-term plans (NHS Improvement, 2019) goal of working towards digitally enabled care. The results suggest that group therapy that is delivered online is positively embraced by people with BD.

Developing innovative, online group therapies may increase the number of people accessing specialist care and reduce relapse rates among this group, supporting the Bipolar UK Commission in working towards developing specialist interventions and pathways for people with BD. It is understood that people with BD face difficulties in taking an active role in their treatment and fostering a sense of control, therefore professionals can consider the benefits of offering remote group therapy to help reduce power imbalances and encourage service users to be more active in their treatment, which may reduce the burden of responsibility on professionals.

The perceived accessibility and usability described by participants may encourage developments in offering an alternative option to face-to-face therapy to help those in employment, experiencing financial burden and struggling to attend in-person therapy physically. This may allow more inclusivity for those who may otherwise disengage with services. A sense of community and bonds can be created using online platforms, with similar group processes occurring online as in person. Therefore, the benefits of these processes can be experienced online as they are in-person groups, too.

9. Summary

Overall, the findings demonstrate promising outcomes and suggest that people with bipolar disorder reported improved access to the group, effective usability, increased adherence, and a general positive impact of the online groups. There is an increasing need to develop innovative ways to increase access to therapy for people with BD, as approximately less than 50% of people are accessing interventions (Merikangas et al., 2011b). Online cognitive behavioural group interventions may support people with BD to access evidence-based therapy, thus reducing the number of those not accessing specialist support. Online delivery of group therapy can cross geographical boundaries, reduce financial burden, and time commitment, and be more suited for those who experience the fluctuating nature of the symptoms of BD and other conditions. The national clinical guidelines (Morriss et al., 2014) recognise that people with BD have difficulties in receiving specialist, timely mental health care due to the burden of symptoms, difficulty in accessing support and inappropriate exclusion from decision-making processes, all of which findings from this study eliminate, representing a more suitable vehicle for delivery of group therapy for people with BD.

References

Backhaus, A., Agha, Z., Maglione, M. L., Repp, A., Ross, B., Zuest, D., Rice-Thorp, N. M., Lohr, J., & Thorp, S. R. (2012). Videoconferencing psychotherapy: a systematic review. *Psychological Services*, *9*(2), 111–131. https://doi.org/ 10.1037/a0027924

Alvidrez, J., & Azocar, F. (1999). Distressed women's clinic patients: Preferences for mental health treatments and perceived obstacles. *General Hospital Psychiatry*, *21*(5). https://doi.org/10.1016/S0163-8343(99)00038-9

Ando, H., Cousins, R., & Young, C. (2014). Achieving Saturation in Thematic Analysis: Development and Refinement of a Codebook. *Comprehensive Psychology*, *3*. https://doi.org/10.2466/03.cp.3.4

Aronowitz, S. V., Engel-Rebitzer, E., Dolan, A., Oyekanmi, K., Mandell, D., Meisel, Z., South, E., & Lowenstein, M. (2021). Telehealth for opioid use disorder treatment in low-barrier clinic settings: an exploration of clinician and staff perspectives. *Harm Reduction Journal*, *18*(1). https://doi.org/10.1186/s12954-021-00572-7

Ball, J. R., Mitchell, P. B., Corry, J. C., Skillecorn, A., Smith, M., & Malhi, G. S. (2006). A randomized controlled trial of cognitive therapy for bipolar disorder: Focus on long-term change. *Journal of Clinical Psychiatry*, *67*(2). https://doi.org/10.4088/JCP.v67n0215

Bansal, N., Karlsen, S., Sashidharan, S. P., Cohen, R., Chew-Graham, C. A., & Malpass, A. (2022). Understanding ethnic inequalities in mental healthcare in the UK: A meta-ethnography. *PLoS Medicine*, *19*(12). https://doi.org/10.1371/journal.pmed.1004139

Barkowski, S., Schwartze, D., Strauss, B., Burlingame, G. M., & Rosendahl, J. (2020). Efficacy of group psychotherapy for anxiety disorders: A systematic review and meta-analysis. *Psychotherapy Research*, *30*(8). https://doi.org/10.1080/10503307.2020.1729440

Barlow, S. H. (2008). Group Psychotherapy Specialty Practice. *Professional Psychology: Research and Practice*, *39*(2). https://doi.org/10.1037/0735-7028.39.2.240

Bassett, D. L. (2010). Risk assessment and management in bipolar disorders. In *Medical Journal of Australia* (Vol. 193, Issue 4). https://doi.org/10.5694/j.1326-5377.2010.tb03893.x

Bee, P. E., Bower, P., Lovell, K., Gilbody, S., Richards, D., Gask, L., & Roach, P. (2008). Psychotherapy mediated by remote communication technologies: A meta-analytic review. In *BMC Psychiatry* (Vol. 8). https://doi.org/10.1186/1471-244X-8-60

Bipolar, UK (2022). Bipolar minds matter: quicker diagnosis and specialist support for everyone with bipolar. Available at: https://www.bipolaruk.org/Handlers/Download.ashx?IDMF=d4fd68a7-ffae-42bb-acf4-f7be3d903f02 (Accessed: 2024).

Blake, H., Bermingham, F., Johnson, G., & Tabner, A. (2020). Mitigating the psychological impact of covid-19 on healthcare workers: A digital learning package. *International Journal of Environmental Research and Public Health*, *17*(9). https://doi.org/10.3390/ijerph17092997

Blixen, C., Perzynski, A. T., Bukach, A., Howland, M., & Sajatovic, M. (2016). Patients' perceptions of barriers to self-managing bipolar disorder: A qualitative study. *International Journal of Social Psychiatry*, *62*(7). https://doi.org/10.1177/0020764016666572

Blocksidge, H., Willis, L., & Codd, J. (2023). Conducting video therapy with adults with an intellectual disability: A qualitative study of qualified and trainee psychologists' experiences. *British Journal of Learning Disabilities*, *51*(3). https://doi.org/10.1111/bld.12496

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2). https://doi.org/10.1191/1478088706qp063oa

Braun, V., & Clarke, V. (2012). Reflecting on reflexive thematic analysis. Qualitative Research in Sport, Exercise and Health. *APA Handbook of Research Methods in Psychology*, *2*.

Braun, V., & Clarke, V. (2013). Interactive data collection: focus groups. *Successful Qualitative Research: A Practical Guide for Beginners*.

Braun, V., & Clarke, V. (2019). Reflecting on reflexive thematic analysis To appear in Qualitative Research in Sport, Exercise and Health. *Exercise and Health*, *11*(4).

Braun, V., & Clarke, V. (2021). One size fits all? What counts as quality practice in (reflexive) thematic analysis? *Qualitative Research in Psychology*, *18*(3). https://doi.org/10.1080/14780887.2020.1769238

Braun, V., & Clarke, V. (2022). Thematic Analysis: A Practical Guide. *QMiP Bulletin*, *1*(33). https://doi.org/10.53841/bpsqmip.2022.1.33.46

Byrne, D. (2022). A worked example of Braun and Clarke's approach to reflexive thematic analysis. *Quality and Quantity*, *56*(3). https://doi.org/10.1007/s11135-021-01182-y

Cason, J. (2017). Telehealth is Face-to-Face Service Delivery. *International Journal of Telerehabilitation*. https://doi.org/10.5195/ijt.2017.6225

Castanho de Almeida Rocca, C., Britto de Macedo-Soares, M., Gorenstein, C., Sayuri Tamada, R., Kluger Issler, C., Silva Dias, R., Schwartzmann, A. M., & Lafer, B. (2008). Social dysfunction in bipolar disorder: Pilot study. *Australian and New Zealand Journal of Psychiatry*, *42*(8). https://doi.org/10.1080/00048670802203426

Cataldo, F., Chang, S., Mendoza, A., & Buchanan, G. (2021). A perspective on client-psychologist relationships in videoconferencing psychotherapy: Literature review. In *JMIR Mental Health* (Vol. 8, Issue 2). https://doi.org/10.2196/19004

Colom, F., Vieta, E., Sánchez-Moreno, J., Palomino-Otiniano, R., Reinares, M., Goikolea, J. M., Benabarre, A., & Martínez-Arán, A. (2009). Group psychoeducation for stabilised bipolar disorders: 5-Year outcome of a randomised clinical trial. *British Journal of Psychiatry*, *194*(3). https://doi.org/10.1192/bjp.bp.107.040485

Cook, S. C., Schwartz, A. C., & Kaslow, N. J. (2017). Evidence-Based Psychotherapy: Advantages and Challenges. In *Neurotherapeutics* (Vol. 14, Issue 3). https://doi.org/10.1007/s13311-017-0549-4

Corrigan, P. W., Druss, B. G., & Perlick, D. A. (2014). The impact of mental illness stigma on seeking and participating in mental health care. *Psychological Science in the Public Interest, Supplement*, *15*(2). https://doi.org/10.1177/1529100614531398

Corrigan, P. W., Larson, J. E., & Kuwabara, S. A. (2010). 4 Social psychology of the stigma of mental illness: Public and self-stigma models. *Social Psychological Foundations of Clinical Psychology.*

Costa, R. T. da, Cheniaux, E., Rosaes, P. A. L., Carvalho, M. R. de, Freire, R. C. da R., Versiani, M., Rangé, B. P., & Nardi, A. E. (2011). The effectiveness of cognitive behavioral group therapy in treating bipolar disorder: a randomized controlled study. *Revista Brasileira de Psiquiatria*, *33*(2). https://doi.org/10.1590/s1516-44462011000200009

Crotty, M. (2020). The foundations of social research. In *The foundations of social research*. https://doi.org/10.4324/9781003115700

Cudmore, K., & McGrath, R. (2022). The challenges of community mental health; Trainee clinical psychologists' perspectives. *Clinical Psychology Forum*, *2022*(356). https://doi.org/10.53841/bpscpf.2022.1.356.58

Davidson, D. (2000). The National Service Framework for Mental Health. *Journal of Integrated Care*, *8*(1). https://doi.org/10.1108/14769018200000002

Diefenbeck, C. A., Klemm, P. R., & Hayes, E. R. (2014). Emergence of Yalom's therapeutic factors in a peer-led, Asynchronous, online support group for family caregivers. *Issues in Mental Health Nursing*, *35*(1). https://doi.org/10.3109/01612840.2013.836260

Drapalski, A. L., Lucksted, A., Perrin, P. B., Aakre, J. M., Brown, C. H., DeForge, B. R., & Boyd, J. E. (2013). A model of internalized stigma and its effects on people with mental illness. *Psychiatric Services*, *64*(3). https://doi.org/10.1176/appi.ps.001322012

Duffy, F. D., Gordon, G. H., Whelan, G., Cole-Kelly, K., & Frankel, R. (2004). Assessing competence in communication and interpersonal skills: The Kalamazoo II report. In *Academic Medicine* (Vol. 79, Issue 6). https://doi.org/10.1097/00001888-200406000-00002

Eisenberg, D., Downs, M. F., Golberstein, E., & Zivin, K. (2009). Stigma and help seeking for mental health among college students. *Medical Care Research and Review*, *66*(5). https://doi.org/10.1177/1077558709335173

Finlay, L. (2002). "Outing" the researcher: The provenance, process, and practice of reflexivity. *Qualitative Health Research*, *12*(4). https://doi.org/10.1177/104973202129120052

Fisher, A., Keast, R., Costa, D., Sharpe, L., Manicavasagar, V., Anderson, J., & Juraskova, I. (2020). Improving treatment decision-making in bipolar II disorder: A phase II randomised controlled trial of an online patient decision-aid. *BMC Psychiatry*, *20*(1). https://doi.org/10.1186/s12888-020-02845-0

Fountoulakis, K. N., Grunze, H., Vieta, E., Young, A., Yatham, L., Blier, P., Kasper, S., & Moeller, H. J. (2017). The international college of neuro-psychopharmacology (CINP) treatment guidelines for bipolar disorder in adults (CINP-BD-2017), Part 3: The clinical guidelines. In *International Journal of Neuropsychopharmacology* (Vol. 20, Issue 2). https://doi.org/10.1093/ijnp/pyw109

Frowe, I. (2001). Language and educational practice. *Cambridge Journal of Education*, *31*(1). https://doi.org/10.1080/03057640125441

Fryer, T. (2022). A critical realist approach to thematic analysis: producing causal explanations. *Journal of Critical Realism*, *21*(4). https://doi.org/10.1080/14767430.2022.2076776

Geddes, J. (2006). Commentary: Bipolar disorder-services need to catch up with rapidly developing evidence base. In *British Medical Journal* (Vol. 332, Issue 7532). https://doi.org/10.1136/bmj.332.7532.32

Giacco, D. (2023). Loneliness and mood disorders: Consequence, cause and/or unholy alliance? In *Current Opinion in Psychiatry* (Vol. 36, Issue 1). https://doi.org/10.1097/YCO.0000000000000832

Gilbert, P., Basran, J. K., Raven, J., Gilbert, H., Petrocchi, N., Cheli, S., Rayner, A., Hayes, A., Lucre, K., Minou, P., Giles, D., Byrne, F., Newton, E., & McEwan, K. (2022). Compassion Focused Group Therapy for People With a Diagnosis of Bipolar Affective Disorder: A Feasibility Study. *Frontiers in Psychology*, *13*. https://doi.org/10.3389/fpsyg.2022.841932

Goetter, E. M., Iaccarino, M. A., Tanev, K. S., Furbish, K. E., Xu, B., & Faust, K. A. (2022). Telemental Health Uptake in an Outpatient Clinic for Veterans During the COVID-19 Pandemic and Assessment of Patient and Provider Attitudes. *Professional Psychology: Research and Practice*, *53*(2). https://doi.org/10.1037/pro0000437

Grey, T., Sewell, H., Shapiro, G., & Ashraf, F. (2013). Mental Health Inequalities Facing U.K. Minority Ethnic Populations. *Journal of Psychological Issues in Organizational Culture*, *3*(S1). https://doi.org/10.1002/jpoc.21080

Harwood, H., Rhead, R., Chui, Z., Bakolis, I., Connor, L., Gazard, B., Hall, J., Maccrimmon, S., Rimes, K. A., Woodhead, C., & Hatch, S. L. (2023). Variations by ethnicity in referral and treatment pathways for IAPT service users in South London. *Psychological Medicine*, *53*(3). https://doi.org/10.1017/S0033291721002518

Hautamäki, L. (2018). Uncertainty work and temporality in psychiatry: how clinicians and patients experience and manage risk in practice? *Health, Risk and Society*, *20*(1–2). https://doi.org/10.1080/13698575.2018.1442918

HM Government. (2011). No health without mental health: Delivering better mental health outcomes for people of all ages. In *Statistics* (Issue February).

Hofmann, B. U., & Meyer, T. D. (2006). Mood fluctuations in people putatively at risk for bipolar disorders. *British Journal of Clinical Psychology*, *45*(1). https://doi.org/10.1348/014466505X35317

Iacobucci, G. (2022). Bipolar disorder lacks specialist support in UK, report finds. *BMJ (Clinical Research Ed.)*, *379*. https://doi.org/10.1136/bmj.o2711

Jonassaint, C. R., Belnap, B. H., Huang, Y., Karp, J. F., Abebe, K. Z., & Rollman, B. L. (2020). Racial Differences in the Effectiveness of Internet-Delivered Mental Health Care. *Journal of General Internal Medicine*, *35*(2). https://doi.org/10.1007/s11606-019-05542-1

Kendrick, T., & Pilling, S. (2012). Common mental health disorders - Identification and pathways to care: NICE clinical guideline. In *British Journal of General Practice* (Vol. 62, Issue 594). https://doi.org/10.3399/bjgp12X616481

Kong, S., Niu, Z., Lyu, D., Cui, L., Wu, X., Yang, L., Qiu, H., Gu, W., & Fang, Y. (2022). Analysis of Seasonal Clinical Characteristics in Patients With Bipolar or Unipolar Depression. *Frontiers in Psychiatry*, *13*. https://doi.org/10.3389/fpsyt.2022.847485

Koopman, W. J., Watling, C. J., & LaDonna, K. A. (2020). Autoethnography as a Strategy for Engaging in Reflexivity. *Global Qualitative Nursing Research*, *7*. https://doi.org/10.1177/2333393620970508

Kysely, A., Bishop, B., Kane, R., Cheng, M., De Palma, M., & Rooney, R. (2020). Expectations and Experiences of Couples Receiving Therapy Through Videoconferencing: A Qualitative Study. *Frontiers in Psychology*, *10*. https://doi.org/10.3389/fpsyg.2019.02992

Laczkovics, C., Blüml, V., Kapusta, N., Hoffmann-Lamplmair, D., Casini, E., Bazan, M., Torres, M. A. G., Lendvay, J., Normandin, L., Nowacki, H., Snigur, V., Doering, S., Yeomans, F., Clarkin, J., & Preti, E. (2023). Videoconferencing psychotherapy from a psychodynamic point of view. A qualitative analysis. *Frontiers in Psychiatry*, *14*. https://doi.org/10.3389/fpsyt.2023.1235478

Lam, D. (2003). Bipolar disorder: a cognitive therapy approach. *Behaviour Research and Therapy*, *41*(5). https://doi.org/10.1016/s0005-7967(02)00145-6

Lam, D. H., Hayward, P., Watkins, E. R., Wright, K., & Sham, P. (2005). Relapse prevention in patients with bipolar disorder: Cognitive therapy outcome after 2 years. *American Journal of Psychiatry*, *162*(2). https://doi.org/10.1176/appi.ajp.162.2.324

Latifian, M., Abdi, K., Raheb, G., Islam, S. M. S., & Alikhani, R. (2023). Stigma in people living with bipolar disorder and their families: a systematic review. *International Journal of Bipolar Disorders*, *11*(1). https://doi.org/10.1186/s40345-023-00290-y

Latifian, M., Raheb, G., Uddin, R., Abdi, K., & Alikhani, R. (2022). The process of stigma experience in the families of people living with bipolar disorder: a grounded theory study. *BMC Psychology*, *10*(1). https://doi.org/10.1186/s40359-022-00999-y

Lau, Y., Htun, T. P., Wong, S. N., Tam, W. S. W., & Klainin-Yobas, P. (2017). Therapist-supported internet-based cognitive behavior therapy for stress, anxiety, and depressive symptoms among postpartum women: A systematic review and meta-analysis. In *Journal of Medical Internet Research* (Vol. 19, Issue 4). https://doi.org/10.2196/jmir.6712

Lecomte, T., Abdel-Baki, A., Francoeur, A., Cloutier, B., Leboeuf, A., Abadie, P., Villeneuve, M., & Guay, S. (2021). Group therapy via videoconferencing for individuals with early psychosis: A pilot study. *Early Intervention in Psychiatry*, *15*(6). https://doi.org/10.1111/eip.13099

Lim, L., Nathan, P., O'Brien-Malone, A., & Williams, S. (2004). A qualitative approach to identifying psychosocial issues faced by bipolar patients. *Journal of Nervous and Mental Disease*, *192*(12). https://doi.org/10.1097/01.nmd.0000146734.39501.57

Lleras de Frutos, M., Medina, J. C., Vives, J., Casellas-Grau, A., Marzo, J. L., Borràs, J. M., & Ochoa-Arnedo, C. (2020). Video conference vs face-to-face group psychotherapy for distressed cancer survivors: A randomized controlled trial. *Psycho-Oncology*, *29*(12). https://doi.org/10.1002/pon.5457

Lockard, R., Priest, K. C., Gregg, J., & Buchheit, B. M. (2022). A qualitative study of patient experiences with telemedicine opioid use disorder treatment during COVID-19. *Substance Abuse*, *43*(1). https://doi.org/10.1080/08897077.2022.2060447

Lorig, K. (2015). Chronic Disease Self-Management Program: Insights from the eye of the storm. In *Frontiers in Public Health* (Vol. 2, Issue APR). https://doi.org/10.3389/fpubh.2014.00253

Marmarosh, C. L., Forsyth, D. R., Strauss, B., & Burlingame, G. M. (2020). The psychology of the COVID-19 pandemic: A group-level perspective. *Group Dynamics*, *24*(3). https://doi.org/10.1037/gdn0000142

Marwaha, S., Durrani, A., & Singh, S. (2013). Employment outcomes in people with bipolar disorder: A systematic review. In *Acta Psychiatrica Scandinavica* (Vol. 128, Issue 3). https://doi.org/10.1111/acps.12087

McCrone, P., Weeramanthri, T., Knapp, M., Rushton, A., Trowell, J., Miles, G., & Kolvin, I. (2005). Cost-effectiveness of individual versus group psychotherapy for sexually abused girls. *Child and Adolescent Mental Health*, *10*(1). https://doi.org/10.1111/j.1475-3588.2005.00113.x

McDermut, W., Miller, I. W., & Brown, R. A. (2001). The Efficacy of Group Psychotherapy for Depression: A Meta-analysis and Review of the Empirical Research. In *Clinical Psychology: Science and Practice* (Vol. 8, Issue 1). https://doi.org/10.1093/clipsy.8.1.98

McIntyre, R. S., & Calabrese, J. R. (2019). Bipolar depression: the clinical characteristics and unmet needs of a complex disorder. In *Current Medical Research and Opinion* (Vol. 35, Issue 11). https://doi.org/10.1080/03007995.2019.1636017

McRoberts, C., Burlingame, G. M., & Hoag, M. J. (1998). Comparative efficacy of individual and group psychotherapy: A meta-analytic perspective. *Group Dynamics*, *2*(2). https://doi.org/10.1037/1089-2699.2.2.101

Merikangas, K. R., Jin, R., He, J. P., Kessler, R. C., Lee, S., Sampson, N. A., Viana, M. C., Andrade, L. H., Hu, C., Karam, E. G., Ladea, M., Medina-Mora, M. E., Ono, Y., Posada-Villa, J., Sagar, R., Wells, J. E., & Zarkov, Z. (2011). Prevalence and correlates of bipolar spectrum disorder in the World Mental Health Survey Initiative. *Archives of General Psychiatry*, *68*(3). https://doi.org/10.1001/archgenpsychiatry.2011.12

Moeller, A. M., Hansen, J. P., & Andersen, P. T. (2022). Patients' experiences of home-based psychotherapy via videoconference: A qualitative study. *Archives of Psychiatric Nursing*, *39*. https://doi.org/10.1016/j.apnu.2022.03.004

Mohr, D. C., Ho, J., Duffecy, J., Baron, K. G., Lehman, K. A., Jin, L., & Reifler, D. (2010). Perceived barriers to psychological treatments and their relationship to depression. *Journal of Clinical Psychology*, *66*(4). https://doi.org/10.1002/jclp.20659

Morden, N. E., Mistler, L. A., Weeks, W. B., & Bartels, S. J. (2009). Health care for patients with serious mental illness: Family medicine's role. In *Journal of the American Board of Family Medicine* (Vol. 22, Issue 2). https://doi.org/10.3122/jabfm.2009.02.080059

Morriss, R., Kendall, T., Braidwood, R., Byng, R., Cipriani, A., James, A., James, A., John, C., Jones, S., Leggett, K., Marcus, E., Mavranezouli, I., Mayo-Wilson, E., McDougall, T., Meyer, T., Paton, C., Stockton, S., Schwannauer, M., Swinden, D., … Wilson, F. (2014). The NICE guideline on the assessment and management of bipolar disorder in adults, children and young people in primary and secondary care. *The British Psychological Society and The Royal College of Psychiatrists*, *185*.

Muir, S. D., de Boer, K., Nedeljkovic, M., & Meyer, D. (2020). Barriers and facilitators of videoconferencing psychotherapy implementation in veteran mental health care environments: a systematic review. *BMC Health Services Research*, *20*(1). https://doi.org/10.1186/s12913-020-05858-3

Neal, R. D., Hussain-Gambles, M., Allgar, V. L., Lawlor, D. A., & Dempsey, O. (2005). Reasons for and consequences of missed appointments in general practice in the UK: Questionnaire survey and prospective review of medical records. In *BMC Family Practice* (Vol. 6). https://doi.org/10.1186/1471-2296-6-47

Nguyen, J., McNulty, N., Grant, N., Martland, N., Dowling, D., King, S., Neely, L., Ball, J., & Dom, G. (2022). The effectiveness of remote therapy in two London IAPT services. *Cognitive Behaviour Therapist*, *15*. https://doi.org/10.1017/S1754470X22000198

NHS Digital. (2014). Adult Psychiatric Morbidity Survey: Survey of Mental Health and Wellbeing, England, 2014 - NHS Digital. In *Apms*.

NHS Improvement. (2019). NHS Long Term Plan Implementation Framework. *NHS Improvement* , *June*.

NICE. (2016). Bipolar disorder: assessment and management | Guidance and guidelines | NICE. *NICE*.

NICE. (2022). 1 Recommendations | Bipolar disorder: assessment and management | Guidance | NICE. *National Institute for Health and Care Excellence*.

Nielssen, O., Staples, L., Karin, E., Kayrouz, R., Dear, B., & Titov, N. (2023). Effectiveness of internet delivered cognitive behaviour therapy provided as routine care for people in the depressed phase of bipolar disorder treated with Lithium. *PLOS Digital Health*, *2*(2). https://doi.org/10.1371/journal.pdig.0000194

Niles, B. L., Klunk-Gillis, J., Ryngala, D. J., Silberbogen, A. K., Paysnick, A., & Wolf, E. J. (2012). Comparing mindfulness and psychoeducation treatments for combat-related PTSD using a telehealth approach. *Psychological Trauma: Theory, Research, Practice, and Policy*, *4*(5). https://doi.org/10.1037/a0026161

Olmos-Vega, F. M., Stalmeijer, R. E., Varpio, L., & Kahlke, R. (2023). A practical guide to reflexivity in qualitative research: AMEE Guide No. 149. *Medical Teacher*, *45*(3). https://doi.org/10.1080/0142159X.2022.2057287

Parish, C. (2012). Minister guarantees access for all to talking therapies. *Mental Health Practice*, *15*(10). https://doi.org/10.7748/mhp2012.07.15.10.5.p8868

Park, Y. S., Konge, L., & Artino, A. R. (2020). The Positivism Paradigm of Research. In *Academic Medicine* (Vol. 95, Issue 5). https://doi.org/10.1097/ACM.0000000000003093

Patel, A., Sefi, A., Hanley, T., Conn, C., & Prescott, J. (2022). An exploration in to how young-people from ethnic-minority backgrounds interact with online counselling. *Mental Health and Social Inclusion*, *26*(4). https://doi.org/10.1108/MHSI-05-2022-0032

Patelis-Siotis, I., Young, L. T., Robb, J. C., Marriott, M., Bieling, P. J., Cox, L. C., & Joffe, R. T. (2001). Group cognitive behavioral therapy for bipolar disorder: A feasibility and effectiveness study. *Journal of Affective Disorders*, *65*(2). https://doi.org/10.1016/S0165-0327(00)00277-9

Pini, S., De Queiroz, V., Pagnin, D., Pezawas, L., Angst, J., Cassano, G. B., & Wittchen, H. U. (2005). Prevalence and burden of bipolar disorders in European countries. *European Neuropsychopharmacology*, *15*(4). https://doi.org/10.1016/j.euroneuro.2005.04.011

Pinto, C., Geraghty, A. W. A., McLoughlin, C., Pagnini, F., Yardley, L., & Dennison, L. (2023). Experiences of psychological interventions in neurodegenerative diseases: a systematic review and thematic synthesis. *Health Psychology Review*, *17*(3). https://doi.org/10.1080/17437199.2022.2073901

Probst, T., Humer, E., Stippl, P., & Pieh, C. (2020). Being a Psychotherapist in Times of the Novel Coronavirus Disease: Stress-Level, Job Anxiety, and Fear of Coronavirus Disease Infection in More Than 1,500 Psychotherapists in Austria. *Frontiers in Psychology*, *11*. https://doi.org/10.3389/fpsyg.2020.559100

Rabelo, J. L., Cruz, B. F., Ferreira, J. D. R., Viana, B. de M., & Barbosa, I. G. (2021). Psychoeducation in bipolar disorder: A systematic review. *World Journal of Psychiatry*, *11*(12). https://doi.org/10.5498/wjp.v11.i12.1407

Ride, J., Kasteridis, P., Gutacker, N., Aragon Aragon, M. J., & Jacobs, R. (2020). Healthcare Costs for People with Serious Mental Illness in England: An Analysis of Costs Across Primary Care, Hospital Care, and Specialist Mental Healthcare. *Applied Health Economics and Health Policy*, *18*(2). https://doi.org/10.1007/s40258-019-00530-2

Rosenblat, J. D., Husain, M. I., Lee, Y., McIntyre, R. S., Mansur, R. B., Castle, D., Offman, H., Parikh, S. V., Frey, B. N., Schaffer, A., Greenway, K. T., Garel, N., Beaulieu, S., Kennedy, S. H., Lam, R. W., Milev, R., Ravindran, A. V., Tourjman, V., Ameringen, M. Van, … Taylor, V. (2023). The Canadian Network for Mood and Anxiety Treatments (CANMAT) Task Force Report: Serotonergic Psychedelic Treatments for Major Depressive Disorder. In *Canadian Journal of Psychiatry* (Vol. 68, Issue 1). https://doi.org/10.1177/07067437221111371

Royal College of Psychiatrists. (2015). *Schizophrenia | Royal College of Psychiatrists*. Schizophrenia Information Leaflet.

Rusu, A. S., & Davis, R. (2022). Interdisciplinary approach of Yalom's group therapy factors: A theoretical model for including animal presence in social work education and practice. *Frontiers in Veterinary Science*, *9*. https://doi.org/10.3389/fvets.2022.1024355

Sagar-Ouriaghli, I., Godfrey, E., Bridge, L., Meade, L., & Brown, J. S. L. (2019). Improving Mental Health Service Utilization Among Men: A Systematic Review and Synthesis of Behavior Change Techniques Within Interventions Targeting Help-Seeking. In *American Journal of Men's Health* (Vol. 13, Issue 3). https://doi.org/10.1177/1557988319857009

Sajatovic, M. (2005). Bipolar disorder: Disease burden. *American Journal of Managed Care*, *11*(SUPPL. 3).

Seidler, Z. E., Wilson, M. J., Kealy, D., Oliffe, J. L., Ogrodniczuk, J. S., & Rice, S. M. (2021). Men's Dropout From Mental Health Services: Results From a Survey of Australian Men Across the Life Span. *American Journal of Men's Health*, *15*(3). https://doi.org/10.1177/15579883211014776

Shah, N., Grover, S., & Rao, G. (2017). Clinical Practice Guidelines for Management of Bipolar Disorder. In *Indian Journal of Psychiatry* (Vol. 59, Issue 5). https://doi.org/10.4103/0019-5545.196974

Sharma, H., Sharma, B., Sharma, D. B., & Psychologist, C. (2017). Burden, Perceived Stigma and Coping Style of Caregivers of Patients with Schizophrenia and Bipolar Disorder. *International Journal of Health Sciences & Research (Www.Ijhsr.Org)*, *7*(November).

Shumet, S., W/michele, B., Angaw, D., Ergete, T., & Alemnew, N. (2021). Magnitude of internalised stigma and associated factors among people with bipolar disorder at Amanuel Mental Specialized Hospital, Addis Ababa, Ethiopia: A cross-sectional study. *BMJ Open*, *11*(4). https://doi.org/10.1136/bmjopen-2020-044824

Simpson, S. G., & Reid, C. L. (2014). Therapeutic alliance in videoconferencing psychotherapy: A review. *Australian Journal of Rural Health*, *22*(6). https://doi.org/10.1111/ajr.12149

Smith, M. A., & Senior, C. (2001). The internet and clinical psychology: A general review of the implications. *Clinical Psychology Review*, *21*(1). https://doi.org/10.1016/S0272-7358(99)00043-4

Stasiak, K., Fleming, T., Lucassen, M. F. G., Shepherd, M. J., Whittaker, R., & Merry, S. N. (2016). Computer-Based and Online Therapy for Depression and Anxiety in Children and Adolescents. *Journal of Child and Adolescent Psychopharmacology*, *26*(3). https://doi.org/10.1089/cap.2015.0029

Suler, J. (2004). The online disinhibition effect. In *Cyberpsychology and Behavior* (Vol. 7, Issue 3). https://doi.org/10.1089/1094931041291295

Sullivan, C., Forrester, M. A., & Hulme, J. A. (2019). Doing Qualitative Research in Psychology: A Practical Guide. *Psychology Teaching Review*, *25*(2). https://doi.org/10.53841/bpsptr.2019.25.2.124

Veseth, M., Binder, P. E., & Stige, S. H. (2017). "If there's no stability around them": Experienced therapists' view on the role of patients' social world in recovery in bipolar disorder.

International Journal of Mental Health Systems, *11*(1). https://doi.org/10.1186/s13033-017-0166-y

Viron, M. J., & Stern, T. A. (2010). The Impact of Serious Mental Illness on Health and Healthcare. *Psychosomatics*, *51*(6). https://doi.org/10.1016/s0033-3182(10)70737-4

Vos, T., Barber, R. M., Bell, B., Bertozzi-Villa, A., Biryukov, S., Bolliger, I., Charlson, F., Davis, A., Degenhardt, L., Dicker, D., Duan, L., Erskine, H., Feigin, V. L., Ferrari, A. J., Fitzmaurice, C., Fleming, T., Graetz, N., Guinovart, C., Haagsma, J., … Murray, C. J. L. (2015). Global, regional, and national incidence, prevalence, and years lived with disability for 301 acute and chronic diseases and injuries in 188 countries, 1990-2013: A systematic analysis for the Global Burden of Disease Study 2013. *The Lancet*, *386*(9995). https://doi.org/10.1016/S0140-6736(15)60692-4

Whiteford, H. A., Ferrari, A. J., Degenhardt, L., Feigin, V., & Vos, T. (2015). The global burden of mental, neurological and substance use disorders: An analysis from the global burden of disease study 2010. *PLoS ONE*, *10*(2). https://doi.org/10.1371/journal.pone.0116820

Whittingham, M., Lefforge, N. L., & Marmarosh, C. (2021). Group psychotherapy as a specialty: An inconvenient truth. *American Journal of Psychotherapy*, *74*(2). https://doi.org/10.1176/appi.psychotherapy.20200037

World Health Organization. (2011). Global burden of mental disorders and the need for a comprehensive, coordinated response from health and social sectors at the country level - EB130/9. *Executive Board 130th Session*.

Wuthrich, V. M., & Frei, J. (2015). Barriers to treatment for older adults seeking psychological therapy. *International Psychogeriatrics*, *27*(7). https://doi.org/10.1017/S1041610215000241

Yalom, I. D., & Crouch, E. C. (1990). The Theory and Practice of Group Psychotherapy: *British Journal of Psychiatry*, *157*(2). https://doi.org/10.1192/s0007125000062723

Yalom, I.D. (1995). The theory and practice of group psychotherapy. London, New york: Basic Books.

Yardley, L. (2000). Dilemmas in qualitative health research. *Psychology and Health*, *15*(2). https://doi.org/10.1080/08870440008400302

Zettle, R. D., & Herring, E. L. (1995). Treatment utility of the sociotropy/autonomy distinction: Implications for cognitive therapy. *Journal of Clinical Psychology*, *51*(2). https://doi.org/10.1002/1097-4679(199503)51:2<280::AID-JCLP2270510219>3.0.CO;2-J

Press release: Excess mortality rate among those with bipolar disorder.

People with bipolar disorder are more likely to lose their lives!

Research at University of Birmingham finds that people with bipolar disorder have an excess mortality rate that is 3 times higher than the general population.

The mortality rate for individuals with bipolar disorder (BD) has been uncertain for some time. Previous research has shown that mortality rates among this population could be between two to eleven times higher relative to the general population (Boschesi Barros et al., 2023; Roshanaei-Moghaddam & Katon, 2009). However, compared to other mental disorders, bipolar disorder is under-researched (Geddes, 2006), which often leads to neglect in service provision and policies.

Previous research exploring mortality rates among BD was published in 2015 (Hayes et al., 2015). It was found that people with BD were approximately two times more likely to lose their lives relative to the general population. This current study was an update, combining results from later papers published from 2014 onwards to investigate whether mortality rates have changed over the years. Current findings indicate that the mortality gap is widening despite increasing awareness and better access to mental health services over the years.

Not only did this new research find a slightly higher all-cause excess mortality rate compared to the general population, but they also found that people with BD are 1.9 times more likely to lose their lives from natural causes such as cardiovascular disease and infections, and 6 times more likely to lose their lives from unnatural causes such as suicide compared to the general population. The findings show that a disproportionate amount of people with BD are still losing their lives compared to those without a diagnosis of BD.

It was also reported that there is no difference in the risk of death among bipolar disorder, depression, and schizophrenia and yet, there are more services and specialised support for those with depression and schizophrenia in the community than there is for BD (Clark, 2011; Corsico et al., 2018).

The lead researcher from the University of Birmingham, Neelam Laxhman, says, “More needs to be done to support those with BD; the risk of death is similar among this group compared to other psychiatric disorders, and yet, this group remains underserved and under-researched”.

Neelam Laxhman also states, “Policymakers and healthcare services need to consider these findings and work towards reducing the excess mortality rate within this group”.

References

Boschesi Barros, V., Fortti Vianna Schmidt, F., & Chiavegatto Filho, A. D. P. (2023). Mortality, survival, and causes of death in mental disorders: Comprehensive prospective analyses of the UK Biobank cohort. *Psychological Medicine*, *53*(8). https://doi.org/10.1017/S0033291722000034

Clark, D. M. (2011). Implementing NICE guidelines for the psychological treatment of depression and anxiety disorders: The IAPT experience. In *International Review of Psychiatry* (Vol. 23, Issue 4). https://doi.org/10.3109/09540261.2011.606803

Corsico, P., Griffin-Doyle, M., & Singh, I. (2018). What constitutes 'good practice' in early intervention for psychosis? Analysis of clinical guidelines. *Child and Adolescent Mental Health*, *23*(3). https://doi.org/10.1111/camh.12229

Geddes, J. (2006). Commentary: Bipolar disorder-services need to catch up with rapidly developing evidence base. In *British Medical Journal* (Vol. 332, Issue 7532). https://doi.org/10.1136/bmj.332.7532.32

Hayes, J. F., Miles, J., Walters, K., King, M., & Osborn, D. P. J. (2015). A systematic review and meta-analysis of premature mortality in bipolar affective disorder. *Acta Psychiatrica Scandinavica*, *131*(6). https://doi.org/10.1111/acps.12408

Roshanaei-Moghaddam, B., & Katon, W. (2009). Premature mortality from general medical illnesses among persons with bipolar disorder: A review. In *Psychiatric Services* (Vol. 60, Issue 2). https://doi.org/10.1176/ps.2009.60.2.147

Press release: Patients perception of online group CBT therapy for people with bipolar disorder- a qualitative analysis.

Unlock the power of online group therapy!

Online group therapy is perceived as an accessible, convenient, and effective way to connect with others, share experiences, and support growth. Traditional group therapy is face-to-face, usually in a hospital or clinic room. Whilst research has found positive outcomes from traditional group therapy (Ball et al., 2006; Costa et al., 2011), recent developments in technology, digital platforms, and the sudden need for remote services due to COVID-19 have called for a change in how our mental health services are delivered (NHS England, 2019).

People with Bipolar Disorder (BD) face challenges in their daily lives and are often overlooked by healthcare professionals, researchers, and policymakers (Geddes, 2006). This has a negative impact on their ability to access and engage with therapy, which can lead to poorer outcomes (Marwaha et al., 2013). Previous research has suggested that at least 50% of people with BD are not receiving psychological input, which is higher compared to some other disorders (Merikangas et al., 2011).

In response to the COVID-19 pandemic, a specialist service in a large mental health Trust switched from face-to-face groups to online videoconferencing groups. However, despite the uptake, how people with BD perceived the online groups was still unclear. This research interviewed 13 people who had attended the videoconferencing groups to ask them about how they perceived them.

People who attended the group reported that they felt more empowered to make choices for themselves and engage with clinicians about their treatment choices. They also felt more in control of their care and able to alert the group facilitators about support issues when needed. Group members reported experiencing a sense of group bonding and support, some of which provided a foundation for developing hope in managing their condition. They also reported that it was easier to access the therapy and overcome the impediments to attending such as low mood and mobility issues. The online groups also reduced the burden of travel, financial strain, and the need to take time off from work, as people could access group therapy from the comfort of their homes.

Lead researcher from the University of Birmingham, Neelam Laxhman, says, “Perhaps online group therapy will support more people with BD to access mental health interventions, which is considerate of their specific needs”.

The results illustrate the need for developing more innovative, digitalised therapy for people with BD, helping them access specialist care and treatment pathways. This may lead to better mental health outcomes and engagement and reduce relapse rates, all of which cost the NHS millions per year (Ride et al., 2020).

References

Ball, J. R., Mitchell, P. B., Corry, J. C., Skillecorn, A., Smith, M., & Malhi, G. S. (2006). A randomized controlled trial of cognitive therapy for bipolar disorder: Focus on long-term change. *Journal of Clinical Psychiatry*, *67*(2). https://doi.org/10.4088/JCP.v67n0215

Costa, R. T. da, Cheniaux, E., Rosaes, P. A. L., Carvalho, M. R. de, Freire, R. C. da R., Versiani, M., Rangé, B. P., & Nardi, A. E. (2011). The effectiveness of cognitive behavioral group therapy in treating bipolar disorder: a randomized controlled study. *Revista Brasileira de Psiquiatria*, *33*(2). https://doi.org/10.1590/s1516-44462011000200009

Geddes, J. (2006). Commentary: Bipolar disorder-services need to catch up with rapidly developing evidence base. In *British Medical Journal* (Vol. 332, Issue 7532). https://doi.org/10.1136/bmj.332.7532.32

Marwaha, S., Durrani, A., & Singh, S. (2013). Employment outcomes in people with bipolar disorder: A systematic review. In *Acta Psychiatrica Scandinavica* (Vol. 128, Issue 3). https://doi.org/10.1111/acps.12087

Merikangas, K. R., Jin, R., He, J. P., Kessler, R. C., Lee, S., Sampson, N. A., Viana, M. C., Andrade, L. H., Hu, C., Karam, E. G., Ladea, M., Medina-Mora, M. E., Ono, Y., Posada-Villa, J., Sagar, R., Wells, J. E., & Zarkov, Z. (2011). Prevalence and correlates of bipolar spectrum disorder in the World Mental Health Survey Initiative. *Archives of General Psychiatry*, *68*(3). https://doi.org/10.1001/archgenpsychiatry.2011.12

NHS England. (2019). NHS Long Term Plan. In *NHS Improvement*.

Ride, J., Kasteridis, P., Gutacker, N., Aragon Aragon, M. J., & Jacobs, R. (2020). Healthcare Costs for People with Serious Mental Illness in England: An Analysis of Costs Across Primary Care, Hospital Care, and Specialist Mental Healthcare. *Applied Health Economics and Health Policy*, *18*(2). https://doi.org/10.1007/s40258-019-00530-2

Appendices

Appendix A. Full list of search terms

PsycInfo

Bipolar disorder/(bipolar adj1 disorder) OR "bipolar illness* OR "manic depression" COMBINE 1 or 2 or 3 or 4 exp OR "Death and Dying" OR exp "Death and Dying" OR "suicide" OR exp Mortality Rate OR exp Sudden Death OR exp Life ("life expectancy" OR mortality OR death OR dying OR Expectancy OR suicide OR natural death OR unnatural death 6 or 7 or 8 or 9 or 10 or 11 and 12 and 13 limit 14 to English language limit 15 to yr="2014 -Current"

Medline

Bipolar Disorder/ (bipolar adj1 disorder) OR "bipolar illness* OR "manic depression" COMBINE 1 or 2 or 3 or 4 Life Expectancy/ Mortality, OR Premature/ OR Mortality OR Death OR ("life expectancy" OR mortality OR death OR dying OR suicide OR unnatural death OR natural death) COMBINE 6 or 7 or 8 or 9, 10, 11 AND 5 and 10 limit 11 to English language limit 12 to yr="2014 -Current"

Embase

Bipolar disorder/ (bipolar adj1 disorder) OR "bipolar illness* OR "manic depression" COMBINE 1 or 2 or 3 or 4 OR life expectancy OR/ OR mortality rate/ OR mortality/ OR sudden death/ OR accidental death/ OR death/ dying/ ("life expectancy" OR mortality OR death OR dying) OR suicide, OR natural death OR unnatural death 6 or 7 or 8 or 9 or 10 or 11 or 12 5 and 11 limit 12 to English language limit 13 to yr="2014 -Current"

Appendix B. Prisma, (2020) Systematic review checklist

Section and Topic	Item #	Checklist item	Location where item is reported
TITLE			
Title	1	Identify the report as a systematic review.	
ABSTRACT			
Abstract	2	See the PRISMA 2020 for Abstracts checklist.	
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of existing knowledge.	
Objectives	4	Provide an explicit statement of the objective(s) or question(s) the review addresses.	
METHODS			
Eligibility criteria	5	Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses.	
Information sources	6	Specify all databases, registers, websites, organisations, reference lists and other sources searched or consulted to identify studies. Specify the date when each source was last searched or consulted.	
Search strategy	7	Present the full search strategies for all databases, registers and websites, including any filters and limits used.	
Selection process	8	Specify the methods used to decide whether a study met the inclusion criteria of the review, including how many reviewers screened each record and each report retrieved, whether they worked independently, and if applicable, details of automation tools used in the process.	
Data collection process	9	Specify the methods used to collect data from reports, including how many reviewers collected data from each report, whether they worked independently, any processes for obtaining or confirming data from study investigators, and if applicable, details of automation tools used in the process.	
Data items	10a	List and define all outcomes for which data were sought. Specify whether all results that were compatible with each outcome domain in each study were sought (e.g. for all measures, time points, analyses), and if not, the methods used to decide which results to collect.	
	10b	List and define all other variables for which data were sought (e.g. participant and intervention characteristics, funding sources). Describe any assumptions made about any missing or unclear information.	
Study risk of bias assessment	11	Specify the methods used to assess risk of bias in the included studies, including details of the tool(s) used, how many reviewers assessed each study and whether they worked independently, and if applicable, details of automation tools used in the process.	
Effect measures	12	Specify for each outcome the effect measure(s) (e.g. risk ratio, mean difference) used in the synthesis or presentation of results.	

Section and Topic	Item #	Checklist item	Location where item is reported
Synthesis methods	13a	Describe the processes used to decide which studies were eligible for each synthesis (e.g. tabulating the study intervention characteristics and comparing against the planned groups for each synthesis (item #5)).	
	13b	Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions.	
	13c	Describe any methods used to tabulate or visually display results of individual studies and syntheses.	
	13d	Describe any methods used to synthesize results and provide a rationale for the choice(s). If meta-analysis was performed, describe the model(s), method(s) to identify the presence and extent of statistical heterogeneity, and software package(s) used.	
	13e	Describe any methods used to explore possible causes of heterogeneity among study results (e.g. subgroup analysis, meta-regression).	
	13f	Describe any sensitivity analyses conducted to assess robustness of the synthesized results.	
Reporting bias assessment	14	Describe any methods used to assess risk of bias due to missing results in a synthesis (arising from reporting biases).	
Certainty assessment	15	Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome.	
RESULTS			
Study selection	16a	Describe the results of the search and selection process, from the number of records identified in the search to the number of studies included in the review, ideally using a flow diagram.	
	16b	Cite studies that might appear to meet the inclusion criteria, but which were excluded, and explain why they were excluded.	
Study characteristics	17	Cite each included study and present its characteristics.	

Risk of bias in studies	18	Present assessments of risk of bias for each included study.	
Results of individual studies	19	For all outcomes, present, for each study: (a) summary statistics for each group (where appropriate) and (b) an effect estimate and its precision (e.g. confidence/credible interval), ideally using structured tables or plots.	
Results of syntheses	20a	For each synthesis, briefly summarise the characteristics and risk of bias among contributing studies.	
	20b	Present results of all statistical syntheses conducted. If meta-analysis was done, present for each the summary estimate and its precision (e.g. confidence/credible interval) and measures of statistical heterogeneity. If comparing groups, describe the direction of the effect.	
	20c	Present results of all investigations of possible causes of heterogeneity among study results.	
	20d	Present results of all sensitivity analyses conducted to assess the robustness of the synthesized results.	
Reporting biases	21	Present assessments of risk of bias due to missing results (arising from reporting biases) for each synthesis assessed.	
Certainty of evidence	22	Present assessments of certainty (or confidence) in the body of evidence for each outcome assessed.	
DISCUSSION			
Discussion	23a	Provide a general interpretation of the results in the context of other evidence.	
	23b	Discuss any limitations of the evidence included in the review.	
	23c	Discuss any limitations of the review processes used.	
	23d	Discuss implications of the results for practice, policy, and future research.	
OTHER INFORMATION			
Registration and protocol	24a	Provide registration information for the review, including register name and registration number, or state that the review was not registered.	
	24b	Indicate where the review protocol can be accessed, or state that a protocol was not prepared.	
	24c	Describe and explain any amendments to information provided at registration or in the protocol.	
Support	25	Describe sources of financial or non-financial support for the review, and the role of the funders or sponsors in the review.	
Competing interests	26	Declare any competing interests of review authors.	
Availability of data, code and other materials	27	Report which of the following are publicly available and where they can be found: template data collection forms; data extracted from included studies; data used for all analyses; analytic code; any other materials used in the review.	

Appendix 1. HRA approval

[redacted]

Email: approvals@hra.nhs.uk
HCRW.approvals@wales.nhs.uk

17 April 2021

Dear [redacted]

HRA and Health and Care Research Wales (HCRW) Approval Letter

Study title:	**A feasibility and acceptability trial of a group, videoconferencing, CBT-based intervention for bipolar disorder.**
IRAS project ID:	**287834**
Protocol number:	**n/a**
REC reference:	**21/PR/0409**
Sponsor	**[redacted] Mental Health NHS Foundation Trust**

I am pleased to confirm that **HRA and Health and Care Research Wales (HCRW) Approval** has been given for the above referenced study, on the basis described in the application form, protocol, supporting documentation and any clarifications received. You should not expect to receive anything further relating to this application.

Please now work with participating NHS organisations to confirm capacity and capability, in line with the instructions provided in the "Information to support study set up" section towards the end of this letter.

How should I work with participating NHS/HSC organisations in Northern Ireland and Scotland?
HRA and HCRW Approval does not apply to NHS/HSC organisations within Northern Ireland and Scotland.

If you indicated in your IRAS form that you do have participating organisations in either of these devolved administrations, the final document set and the study wide governance report (including this letter) have been sent to the coordinating centre of each participating nation. The relevant national coordinating function/s will contact you as appropriate.

Please see IRAS Help for information on working with NHS/HSC organisations in Northern Ireland and Scotland.

How should I work with participating non-NHS organisations?
HRA and HCRW Approval does not apply to non-NHS organisations. You should work with your non-NHS organisations to obtain local agreement in accordance with their procedures.

What are my notification responsibilities during the study?

The standard conditions document "*After Ethical Review – guidance for sponsors and investigators*", issued with your REC favourable opinion, gives detailed guidance on reporting expectations for studies, including:

- Registration of research
- Notifying amendments
- Notifying the end of the study

The HRA website also provides guidance on these topics, and is updated in the light of changes in reporting expectations or procedures.

Who should I contact for further information?
Please do not hesitate to contact me for assistance with this application. My contact details are below.

Your IRAS project ID is **287834**. Please quote this on all correspondence.

Yours sincerely,
Chris Kitchen

N/A

Email: approvals@hra.nhs.uk

Copy to: *Dr* [redacted]

List of Documents

The final document set assessed and approved by HRA and HCRW Approval is listed below.

Document	*Version*	*Date*
Interview schedules or topic guides for participants [Interview Schedule for subset of participants]	1	24 February 2021
IRAS Application Form [IRAS_Form_16032021]		16 March 2021
IRAS Application Form XML file [IRAS_Form_16032021]		16 March 2021
IRAS Checklist XML [Checklist_16032021]		16 March 2021
IRAS Checklist XML [Checklist_23032021]		23 March 2021
Participant consent form [Participant Consent Form]	2	14 April 2021
Participant information sheet (PIS) [Participant Information Sheet]	3	14 April 2021
Research protocol or project proposal [Research Protocol]	1	18 February 2021
Summary CV for Chief Investigator (CI) [Chief Investigator CV]		24 February 2021
Summary CV for student [Student CV]	1	23 March 2021
Summary, synopsis or diagram (flowchart) of protocol in non technical language [Summary Flowchart]	1	24 February 2021
Validated questionnaire [Questionnaires]		24 February 2021

IRAS project ID	287834

Information to support study set up

The below provides all parties with information to support the arranging and confirming of capacity and capability with participating NHS organisations in England and Wales. This is intended to be an accurate reflection of the study at the time of issue of this letter.

Types of participating NHS organisation	Expectations related to confirmation of capacity and capability	Agreement to be used	Funding arrangements	Oversight expectations	HR Good Practice Resource Pack expectations
This is a single site study sponsored by the participating NHS organisation therefore there is only one site type.	This is a single site study sponsored by the participating NHS organisation. You should work with your sponsor R&D office to make arrangements to set up the study. The sponsor R&D office will confirm to you when the study can start following issue of HRA and HCRW Approval.	This is a single site study sponsored by the participating NHS organisation therefore no agreements are expected	No application for external funding will be made.	A Principal Investigator should be appointed at study sites.	The sponsor has stated that local staff in participating organisations in England who have a contractual relationship with the organisation will undertake the expected activities. Therefore no honorary research contracts or letters of access are expected for this study.

Other information to aid study set-up and delivery

This details any other information that may be helpful to sponsors and participating NHS organisations in England and Wales in study set-up.
The applicant has indicated they do not intend to apply for inclusion on the NIHRCRN Portfolio. The Participant Information Sheet has been updated to version 3 (14/04/2021) and the consent form has been updated to version 2 (14/04/2021) following REC Favourable Opinion to bring them in line with HRA standards.

Appendix 2. Local NHS R&D approval

[redacted]
Research and Innovation

15th March 2021

[redacted]
Consultant Clinical Psychologist
[redacted]

Dear Dr [redacted]

Project Title: Feasibility and acceptability of [redacted] online service

This letter confirms that [redacted] Mental Health NHS Foundation Trust will act as sponsor for the above study. The decision was made on the basis of the information provided in the Protocol and IRAS Form.

As sponsor, [redacted] NHS Foundation Trust will provide insurance as per HSG (96) 48 for the study and ensure the study is conducted in accordance with the UK Policy Framework for Health and Social Care Research and all applicable regulatory requirements.

Appendix 1 sets out the allocation of responsibilities between yourself as the Chief Investigator (CI) and [redacted] Mental Health NHS Foundation Trust as the research sponsor, including clear delegation of duties and expectations in relation to trial management, monitoring and conduct.

Please sign and return Appendix 1 to the address above.

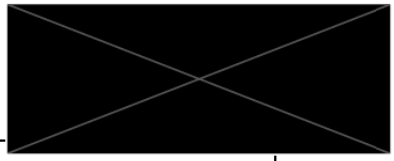
As Chief Investigator you must ensure that the above research does not commence at any site until all applicable approvals have been obtained and agreements finalised (where applicable). **This letter does not constitue Trust Ready to Recruit Status.**

Yours Sincerely

Katie Williams

Research Governance Manager

Cc: **Emma Patterson, Head of R&I**
[redacted]



	amendment is substantial or non-substantial	
	Obtain REC/HRA approval for the amendment	CI
	Provide the amendment to participating NHS Trusts	CI
Study conduct	Ensure research is conducted in line with the protocol, UK Policy for Health and Social Care, GCP and local NHS Trust permission.	CI
	Ensure the rights of participants are protected whilst participating in the research study.	CI
	Prepare and maintain Trial Master File	Sponsor
	Prepare Investigator Site Files for participating NHS Trusts	N/A
	Arrange site initiation (telephone or meeting) with participating NHS Trust	N/A
	Provide green light to participating NHS Trusts	Sponsor
	Appoint and ensure appropriate training of research staff at CI site, and PIs at participating NHS Trusts	CI
	Onward delegation of specific research tasks (signing of delegation log)	CI
	Ensure consistent definition of source data across all participating NHS Trusts	N/A
	Manage study specific Standard Operating Procedures	CI
	Randomisation procedure	N/A
Oversight	Monitoring plan	Sponsor
	Interim site monitoring	Sponsor
	Independent trial oversight: Trial steering committee and/or data monitoring committee set up and management of regular meetings	N/A
Serious Breach and Adverse Events	Identify and document all 'serious breaches' *	CI
	Notify REC, Sponsor and associated participating NHS Trust of 'serious breach'	CI
	Temporary halt in the study	CI
	Identify and document all adverse events	N/A
	Assess all adverse events	N/A
	For Serious Adverse Events that are related and unexpected notify the REC and Sponsor **	N/A
	Follow up of Serious Adverse Event	N/A
	Implement an urgent safety	N/A

Appendix 1:
Allocation of roles & responsibilities under the UK Policy for Health and Social Ca

Research studies sponsored by Birmingham and Solihull Mental Health NHS Foundation Trust.
Non-CTIMPS ONLY.

Task Category	Task	Responsibility
Study Preparation	Categorisation of study (as research and with respects IRAS project categories)	Sponsor
	Protocol design and research methodology	CI
	Participant documentation design	CI
	Peer review	CI
	Ensure appropriate insurance/indemnity arrangements are in place to cover liabilities	Sponsor
	Study costing: NHS Support Costs, Research Costs and Excess Treatment Costs	N/A
	Secure funding	N/A
	Administer funding for the study	N/A
	Secure and contract for supply of resources	N/A
	Draft, negotiate and manage contracts with participating NHS Trusts as required	N/A
Regulatory applications	Apply for NHS Research Ethics Committee Approval	CI
	Apply for Health Research Authority Approval	CI
	Apply for adoption onto the Clinical Research Network Portfolio	N/A
	Provide Local Document Pack to participating NHS Trusts	N/A
	Obtain confirmation of Local Capacity and Capability from participating NHS Trusts	CI
	Confirm Local Capacity and Capability at [redacted]	Sponsor
	Register trial with the ISCTRN (clinical trials only)	N/A
	Prepare and submit annual progress reports to the REC, Sponsor and participating NHS Trusts	CI
	Notify REC, Sponsor and participating NHS Trusts of end of study	CI
Amendments	Write amendments to the protocol and other essential documents as necessary	CI
	Apply for Sponsor authorisation for the amendments	CI
	Determine whether the	Sponsor

	measure	
Data and sample Management	Personal data: collection, handling and storage in line with General Data Protection (GDPR) and Data Protection Act	CI (primary) Sponsor (oversight)
	Arrange database construction, method of data entry and ensure appropriate analysis of data	CI
	Tissue sample: collection, handling, storage and destruction in line with the Human Tissue Act.	N/A
Dissemination and Publication	Ensure dissemination of findings in line with Protocol	CI
	Prepare abstracts, posters and publications	CI
Archiving	Ensure study records are appropriately archived	Sponsor

* A "serious breach" is defined as a breach of the protocol or of the conditions or principles of Good Clinical Practice (or equivalent standards for conduct of non-CTIMPs) which is likely to affect to a significant degree the safety or physical or mental integrity of the trial subjects, or the scientific value of the research. The REC should be notified within 7 days of the event coming to the attention of the CI.

** An SAE occurring to a research participant should be reported to the REC where in the opinion of the Chief Investigator the event was "related" – that is, it resulted from administration of any of the research procedures, and "Unexpected" – that is, the
type of event is not listed in the protocol as an expected occurrence. The REC should be notified within 15 days of the event coming to the attention of the CI.

I agree with the division of activities between myself as Chief Investigator and [redacted] Mental Health NHS Foundation Trust as research sponsor:
Name of CI: [redacted]
Signature of CI: [redacted]
Date: **21/4/21**

Appendix 3. University risk and safety assessment (RAMP)

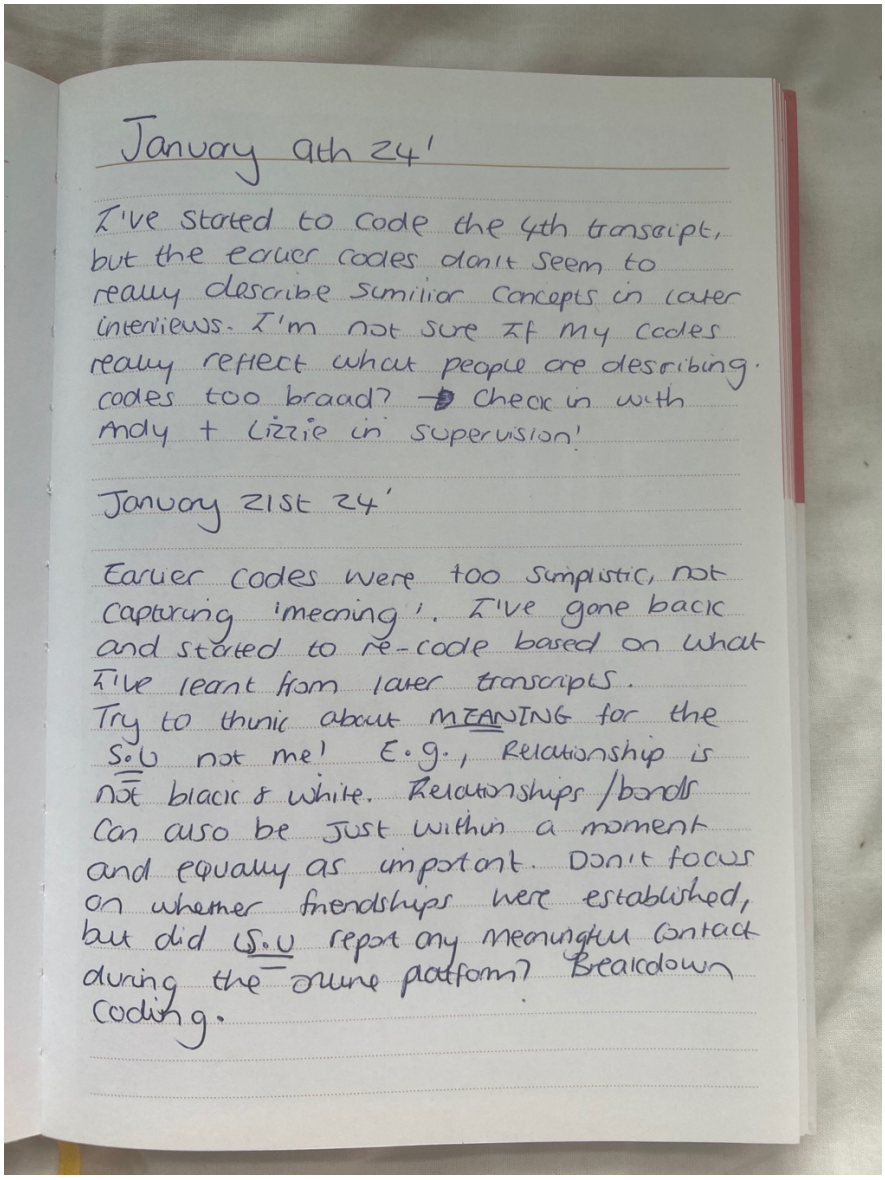
Site	**Online only**	**Department**	**School of Psychology**
Activity Location	**Location of participant's choice**	**Activity Description**	**Experiment or questionnaire performed online only on electronic device. Participants receive or download digital material and perform the activity in a location of their choice.**
Assessor	**Stephanie Burnett Heyes, Rory Devine, Stephen Mayhew**	**Assessment Date**	**October 5th 2023 amended to remove Covid**
Academic / Manager Name	**Stephanie Burnett Heyes**	**Academic / Manager Signature**	**Stephanie Burnett Heyes**

Version / Ref No.	**SOPHS_20_18_A_R3**
Date of Assessment Review	**October 5th 2023**

Hazard Assessment				**Control Assessment**									**Actions**		
Hazard Category	Hazards Identified	Who might be harmed? Staff Students Contractors Others	How might people be harmed?	Existing Control Measures	Initial Risk Rating S	L	R	Are these adequate? Yes/No	Changes to/ Additional Controls	Residual Risk Rating S	L	R	Owner	Due Date	Action Complete
Biological	Virus Transmission between participant and experimenter	Researcher Participant	Potential exposure to contagious illness.	To ensure that the activity does not increase the risk of transmission between researchers and participants, these individuals will never interact in person. For this, all personnel involved in the study will be reminded that in-person activity cannot take place and that all activity in this risk assessment can only take place using computer-, tablet, or phone-mediated communication. Any other in-person interaction is not allowed and should be reported by the experimenter as a breach of protocol. Personnel and participants will be reminded prior to commencing of the study that they should not interact with other people directly during the activity.	5	1	5	Yes					PI	Prior to re-commencing study	
Ergonomic	Poor workstation and space	Participant Researcher	Muscle damage, fatigue.	• Before commencing the experiment, instructions will be given to the participant on setting up an adequate environment and on maintaining a comfortable posture during the experiment. • Participants will be advised of the approximate length of the survey before commencing, and a progress bar will inform them of how much is left to complete • Participants will be provided with a save and return function to enable participants to complete the survey over multiple sessions as best suits their individual needs • Participants will be instructed to make breaks during the procedure to avoid discomfort and fatigue. • Participants will be initially instructed to stop the procedure and report any discomfort or fatigue during the experiment.	2	2	4	Yes					PI	Prior to re-commencing study	
Psychosocial	Accumulated stress	Participants, Researcher	Mental fatigue with the possibility of affecting future activities.	• Participants will be advised of the approximate length of the survey before commencing, and a progress bar will inform them of how much is left to complete • Participants will be provided with a save and return function to enable participants to complete the survey over multiple sessions as best suits their individual needs • Appropriate breaks should be taken between sessions. • Participants will be informed that they are allowed to leave/have a break from the experiment at any point without giving a reason, and that their data will not be used if they choose to leave.	2	4	8	Yes					PI	Prior to re-commencing study	
Safety	Falling/tripping	Participants	Tripping on computer, tablet or phone wires	Instructions provided to the participants before the commencing of the experiment will ensure that environment will be cleared of tripping hazards before activity commences.	3	2	6	Yes					PI	Prior to re-commencing study	
Psychosocial	Stress	Participants, Researcher		• Participants will be informed their data will be kept anonymous. • Participants will be advised to contact research team if they experience stress or upset during or following completing the survey	1	2	2	Yes					PI	Prior to re-commencing study	

Safety	General	Participants, Researcher	University personnel do not follow risk assessed procedures because they are unfamiliar, unaware they must be followed or do not have the skills/knowledge to follow them	The personnel involved will: • review this risk assessment before the activity takes place. • identify any necessary training required to adhere to risk assessed procedures and meet with PI to discuss training needs. • complete training as required to meet needs discussed with PI. • The PI will maintain a record of the above actions. • The PI will provide approval for any student research activity after the risk assessment will be approved.	3	1	3	Yes					PI	Prior to re-commencing study	
Safety	General	Researcher	Researcher does not have the awareness/ skills or experience to deal appropriately with the research protocol	All personnel involved will: • receive training for the experimental procedure before the activity will take place. • report misunderstanding and incidents to PI and to H&S chain. • PI reviews incidents and monitors execution of the activity to ensure appropriate action has been taken.	2	1	2	Yes					PI	Prior to re-commencing study	
Reputational			Poor publicity or complaints	All personnel involved in the activity to be clear on relaying complaints to PI or manager. PI to address complaints with participants and report them following the appropriate channels. Draft instructions for students Draft communication procedure Draft escalation procedure	2	3	6	No		2	2	4	PI	Prior to re-commencing study	
Psychosocial	Mental health and wellbeing	Participants	Participant distress in response to the content of the activity	• Participant information sheet explicitly states whether there is any risk of distress due to the specific content of the activity. • Participant information sheet explicitly states participation is voluntary/right to withdraw. • Participant information sheet explicitly states if confidentiality will be breached following disclosure of information that could indicate someone is at imminent risk of harm. • Ethically approved informed consent/assent and debriefing procedures will be followed. • Research procedures will include safeguards like continuous monitoring through cameras, a button for reporting discomfort, and an ongoing performance monitoring from the activity. If signs of discomfort are shown, a system should be in place to provide participant with an alternative activity, a way to stop, or a way to decrease discomfort by removing the content causing it. PI should be reported within 24 hours of this event and a discussion should take place to continue or modify the activity. • UoB policies and procedures on working with children/vulnerable adults to be always followed. If data collected via online interview, PI to ensure that where possible interviews occur within working hours so support can be accessed promptly if needed. If not possible to be within standard working hours, a PI/Supervisor must be available for support access. • Support contacts to be provided where relevant. For example, providing mental health support contacts if content may be distressing for participants.	3	1	3	Yes		2	1	2	PI	Prior to re-commencing study	
Psychosocial	Mental health and wellbeing	Researcher	Researcher distress in response to participant survey/interview responses	Researcher/student to debrief with named supervisor/peer following any disclosure of sensitive or distressing information Researcher students can access the University of Birmingham counselling services Researchers to maintain contact with supervisory team, research group and colleagues in University. Supervisor and student to arrange appropriate person to debrief following exposure to potentially distressing	3	2	6	Yes		3	1	3	PI	Prior to re-commencing study	

Appendix 4. Reflexive account



January 9th 24'

I've stated to code the 4th transcipt, but the earlier codes don't seem to really describe similiar concepts in later interviews. I'm not sure if my codes really reflect what people are describing. codes too braad? → Check in with Andy + Lizzie in supervision!

January 21st 24'

Earlier codes were too simplistic, not capturing 'meaning'. I've gone back and started to re-code based on what I've learnt from later transcripts. Try to think about MEANING for the S.U not me! E.g., Relationship is not black & white. Relationships / bonds can also be just within a moment and equally as important. Don't focus on whether friendships were established, but did S.U report any meaningful contact during the online platform? Breakdown coding.

Appendix 5. Interview schedule/topic guide

Participants' experience and opinions of Online XXXXXXXX sessions

Semi Structured Qualitative Interview Schedule

Preamble:

Thank you for agreeing to take part in this interview. We want to know about your general experience of the XXXX course, and within this, we are particularly interested to know about your experiences of doing the programme online/remotely.

I would like to ask you a few questions about your experience of the XXXXX group and individual sessions. I would like to hear about your thoughts and experiences in your own words. There are no right or wrong answers. There are seven sections to the interview, some are longer than others. Each section will start with a broad question and I may follow that with prompts if required. If you don't understand the question please feel free to ask First, I will ask you about the referral process.

Areas to explore:

1 - REFERRAL

Purpose: To understand the participant's point of view in relation to the referral process including waiting time and overall views and experiences of the process.

Broad question

Can you tell me about your referral to XXXXX

Possible prompts:

Who referred you?

When did the referral take place?

What was your experience of assessment?

2 - SETTING YOURSELF UP

Purpose: To understand the participant's experience of setting up the practicalities in order to access the remote/online service. We want to understand the challenges and difficulties as well as the positive aspects.

Broad question

How easy or difficult was it to set yourself up to be able to take part in an online group course or individual sessions? (Prompt for practical issues with technology)

Possible prompts:

How easy or difficult was it for you to find a place where you could set yourself up in a private space? What barriers (if any) did you face?

What was it like in the first session? Were there any problems that needed to be overcome?

Is there anything that you think could help people with accessing online sessions?

Can you tell me about any materials provided and your thoughts on those? Positive negative/suggestions

3 - EXPECTATIONS OF THE ONLINE GROUP

Purpose: To understand the expectations from the participant's point of view prior to attending the remote group programme including hopes and specific aspects as well as what they would have achieved by attending the group.

Broad question

What were your expectations for the XXXX programme?

Possible prompts:

When you found out the group and individual sessions were going to be online what did you think?

What, if anything, were you hoping to gain from the course?

What doubts, if any, did you have about it?

What were your first impressions?

4 - EXPERIENCE OF THE GROUP SESSIONS

Purpose: ***This is a key part of the interview so need to ensure the participant covers all areas below. It is the main part of the interview. The aim is to obtain a detailed description of the experience from the participant's point of view including the good aspects as well as the challenges. Interviewer to make sure the focus is kept on the experience of the remote aspects of the group. By the end of this section, the interviewer should have built a thorough picture of the participant's thoughts, feelings, likes, dislikes and suggestions for improvements.***

Broad question: Can you tell me about your overall experience of the online group sessions?

Possible prompts:

If you had to describe what they were like to someone thinking of attending what would you say?

What did you do in the group?

Tell me about the content of the group, what was covered?

What did you find useful/ Not useful and why?

What worked well remotely, what did not work so well?

What did you like?

What did you not like?

How did you feel before you attended each session?

How did you feel whilst you were at the group?

How did you feel after each session ?

Are there advantages or disadvantages to it being online?

What suggestions would you make about improvements?

What it was like being a member of the online group?

Can you describe the group? How did you get on with the other people?

What were relationships like between group members?

How did you get on with the facilitators?

What advice would you give them about running an online group?

How do you think the remote format influenced the group relationships?

Did relationships continue beyond the group – tell me more

5 - COMPLETING QUESTIONNAIRES

Purpose: This area can be brief. The aim is to understand the participant's experience of completing the questionnaire measures.

Broad question: Can you tell me about filling in the questionnaires before the group sessions?

Possible prompts:

Can you describe the process of filling in the questionnaires before the group?

Why did you have to do this?

What do you think about completing questionnaires?

What did you think about the content of the questionnaires?

How did find completing the questionnaires online?

Did anyone ever contact you about them – what was this like? Helpful/unhelpful

6 - INDIVIDUAL 1 to 1 SESSIONS

Purpose: The aim is to obtain a detailed description of the expectations and experiences from the participant's point of view including the good aspects as well as the challenges of the individual sessions. Interviewer to make sure the focus is kept on the experience of the remote aspects of the process. By the end of this section, the interviewer should have built a thorough picture of the participant's thoughts, feelings, likes, dislikes and suggestions for improvements.

Broad question: What were your expectations for doing the 1:1 sessions delivered in an online format?

Possible prompts:

Were your expectation met during these sessions and why?

What are the main things you have taken away from the 1:1 sessions?

How did you feel before you attended?

Broad question: What was your experience of the online 1:1 sessions ?

(This is a key part of the interview so ensure areas below are covered by the participant)

Possible prompts:

If you had to describe what they were like to someone thinking of attending these 1:1 sessions what would you say?

What did you do in the 1:1 sessions?

What did you find useful/ Not useful and why?

What worked well remotely, what didn't work so well

What did you like in the 1:1? What didn't you like?

How did you feel whilst you were seeing the therapist?

How did you find the therapist?

How did you feel after the 1:1?

Are there advantages or disadvantages to these being online?

What suggestions would you make about improvements?

What do you think the outcome of the individual sessions for you?

7 – ENDING QUESTION

Purpose: These are final questions to check participant's perceptions of change they see as resulting from XXX and any issues that have not been covered up to this stage.

Broad question: Can you tell me about any changes you have made or noticed since doing the course?

Possible prompts

Have you felt your mood/symptoms have changed over the duration of the course? In what way? What has helped/not helped

Is this different to what you would have done prior to the course

Are there parts of the course do you think link to any changes noticed

Broad Question: do you have any advice for those running the course or attending in the future?

What advice would you give to other people about attending the online MoT course?

What advice would you give the clinicians about what they should keep doing? Any changes that they should make?

Appendix 6. Information sheet

Participant Information Sheet

Study Title

Investigating the feasibility and acceptability of an online, CBT-based, group intervention for individuals with bipolar disorder.

Summary

Due to the COVID-19 pandemic, the [redacted] is now delivering the [redacted] programme online, using videoconferencing technology. [redacted] is a CBT-based programme of psychoeducation for adults struggling with mood fluctuations. The programme consists of 13 weeks of group psychoeducation sessions, followed by 6-8 individual sessions, to devise a 'staying well plan'. The programme originated in [redacted] but is now being delivered in other health Trusts who also wish to deliver it using video. The demand for this type of intervention is increasing with the transformation of Community Teams to provide more therapeutic interventions for people with Bipolar Disorder (and other conditions). It is really important that we understand what formats are best to deliver such interventions.

There is very little information or evidence available about remote delivery of psychological interventions for people with a diagnosis of Bipolar Disorder. We would like to add to the evidence base by exploring the feasibility and acceptability of delivering the [redacted] Programme via video groups and individual sessions. We aim to collect questionnaire data to capture your mood, recovery and engagement with MoT and we may contact you at the end of the programme to invite you to an interview where you can share some further feedback.

What is involved?

The current literature on videoconferencing interventions is limited, and to our knowledge, there is no literature on delivering this type of group intervention for individuals with bipolar disorder by video. Of the limited literature available, studies have suggested that videoconferencing interventions can be just as feasible, acceptable, and effective as face-to-face interventions. We would like to investigate this through collecting our usual clinical questionnaire data, via Microsoft Forms, via post and via a poll at the end of each group session to record process measures on how participants found the session and its content. We anticipate up to 100 individuals will partake in this research.

What would taking part involve?

There is no obligation to consent to this research; the [redacted] programme and your care will not differ whether you choose to consent or not. In [redacted] we ask all service users to complete outcome measures every week during the group intervention to tell us about how they are feeling. These take approximately 20 minutes in week one and thirteen and 5 minutes on week's 2-12. We also do Zoom polls to find out how they think the sessions went.

If you consent to taking part in the research the main difference is that we would ask you to consent to this questionnaire and poll data being anonymised and being used for research purposes – so that we can investigate change over time and we can publish the results of the research so that other clinical services can utilise the information.

We will also ask you to complete one additional set of questionnaires looking at mood, recovery and wellbeing six weeks before the [redacted] This gives us more information about how things change during your wait for intervention. These online questionnaires are exactly the same as you will do at the start and end of the group and will

take approximately 20 minutes to complete. In addition, you will also be asked to fill in two paper questionnaires because these cannot be filled in online. One asks about how you experienced your appointments – we will ask you to do this three times. One asks about mood we will ask you to do this 15 times.

The measures which are collected for the research are:

General Anxiety Disorder (GAD-7)- This generates a measure of anxiety over the past two weeks

Patient Health Questionnaire (PHQ-9)- This generates a measure of depression over the past two weeks

Internal State Scale (ISS) –This generates a measure of manic and depressive symptoms over the past two weeks

Work and Social Adjustment Scale (WASAS)- This generates a measure of an individual's ability to do day-to-day tasks

Bipolar Recovery Questionnaire (BRQ)- This generates a measure of an individual's self-perceived recovery

Brief Quality of Life in Bipolar Disorder (BriefQuol.BD)- this generates a measure of an individual's perceived quality of life

You will be asked to complete these on 15.occasions (PHQ-9, GAD-7, BRQ) and 4 occasions (BRQ, WASAS, BriefQuol.BD

Following the group and the individual sessions we will invite 20 people to discuss their experience of the remote [redacted] programme, with a researcher. The researcher will use an interview guide with some topics of conversation to get to know more about your views of the programme. You will be reimbursed £20 for the time spent doing this interview and interviews will last no longer than an hour. Any audio recording taken during the interview will be stored as a password protected file and only kept up until transcription.

You have the right to withdraw your consent and your data at any time before analysis of the data. Withdrawing your consent at any time will have no consequences to your care. If you withdraw your consent before data analysis, your data will be removed from the study. At The end of the study your anonymised data may be included in an academic report or within a student university assignment.

What are the possible benefits of taking part?

There are no direct benefits to being involved, however, this research could lead to future developments in different modes of [redacted] delivery and will help us and other services to better understand how well remote delivery works. This could potentially increase accessibility for individuals with bipolar disorder to an intervention in line with National Institute of Clinical Excellence (NICE) guidelines in future.

What are the possible disadvantages and risks of taking part?

As the [redacted] intervention and questionnaires required for this research are routinely conducted and have been for several years, we do not anticipate any additional risk to service users for being involved in this research. There is an additional time burden as some extra questionnaires will be required if you take part in the research , these should take no longer then 1 hour in total. If you consent to take part in the interview towards the end of the

programme, this will require some additional time, that would not normally be part of the programme. However, you will be reimbursed for any time spent doing this.

Further supporting information

What will happen if I do not want to carry on with the study?

You have a right to withdraw your consent at any time up until data analysis has been completed, with no consequences to your care. Therefore, if you choose to consent to this research and later change your mind, we will remove your data provided up to that point from our database and you can continue with the [redacted] programme as usual.

How will my information be kept confidential?

Your information will be anonymised and stored in line with [redacted] Mental Health Foundation Trust's [redacted] information governance procedures.

We will need to use information from you for this research project.

This information will include your:

- Initials
- RiO number/ NHS number
- Name
- Contact Details

People will use this information to do the research. People who do not need to know who you are will not be able to see your name or contact details. Your data will have a code number instead making the data anonymous.

We will keep all information about you safe and secure.

Once we have finished the study, we will keep some of the data so we can check the results. We will write our reports in a way that no-one can work out that you took part in the study.

You can find out more about how we use your information:

- at www.hra.nhs.uk/information-about-patients/
- by asking one of the research team
- by sending an email to [redacted] researchandinnovation@nhs.net

What will happen to the results of this study?

The results of this study may be included in an academic report, published in peer reviewed journals, and presented at conferences to other clinicians and researchers within the NHS.

Who is organising and funding this study?

[redacted] are the research sponsor.

There is no funding for this research.

How have patients and the public been involved in this study?

We have set up a service user Steering Group, consisting of individuals who previously completed the [redacted] course and who have an interest in research. They have been involved in providing feedback and direction for the project, as well as reviewing materials and attending research meetings. Qualitative feedback was obtained from service users who

completed half of the [redacted] course virtually and half in person. This provided us with feedback on how the two versions of the course compare, and what we could do to improve this for the next group.

Who has reviewed this study?

This study has been peer reviewed and developed in collaboration with experienced clinicians and/or researchers from the University of Birmingham.

The study has also been reviewed and approved by two national bodies – the Health Research Authority (HRA) and the NHS Research Ethics Committee (REC).

The Research and Innovation (R&I) Department at [redacted] have reviewed the study and authorised the project to begin.

Further information and contact details

If you have any further questions, please contact the Chief Investigator [redacted] (Consultant Clinical Psychologist and Manager of the [redacted]

If you like to receive confidential advice from someone independent from this study, please contact the Patient Advice and Liaison Service (PALS) at bsmhft.customerrelations@nhs.net or 0800 953 0045.

What to expect during the consent process?

If you choose to consent to this research, you will be required to complete a consent form during your assessment meeting.

Appendix 7. Consent form

Consent Form for Research Study

Title of Project: Investigating the feasibility and acceptability of an online, CBT-based, group intervention for individuals with bipolar disorder.

Name of Researcher:

Please initial box

1. I confirm that I have read the information sheet dated 14th April 2021 (version 3) for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. ☐

2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my medical care or legal rights being affected. ☐

3. I consent to any interview I may be asked to take part in being audio recorded for transcription purposes and this will be kept on a password protected file on an NHS computer. Transcription will be anonymised and have no identifiable information and the recording will be deleted upon transcription. ☐

4. I understand that relevant sections of my data collected during the study, may be looked at by individuals from XXXXXX from regulatory authorities or from the NHS Trust, where it is relevant to my taking part in this research. I give permission for these individuals to have access to my records. ☐

5. I understand that my anonymised data may be included within a university assignment which will be accessed by staff at the University of Birmingham. ☐

6. I consent to be contacted upon the conclusion of the research to receive a summary of the findings ☐

7. I agree to take part in the above study ☐

Name of Participant	Date	Signature
Name of Person taking consent	Date	Signature

Appendix 8. Reimbursement form

ERVICE USER / CARER - EXPENSES AND FEES

Due to welfare benefit regulations it is not possible for us to offer more than £20 per week for contributions to engagement work. The payment you receive is a token gesture of our appreciation. If you wish to earn more than £20 a week you can contact our Finance department to enquire about becoming self-employed (this will mean you may need to make national insurance and tax contributions). There are also options for greater involvement through peer support workers, apprenticeships and volunteering.

All sections MUST be completed

Name (print)	
Home Address	
Email address (for confirmation of payment)	
National Insurance Number (this information is required because of statutory services accounting regulations)	

Bank Account Details

Name of Bank	
Address of Bank	
Name of Account Holder	
Account Number	
Sort Code	

Payment details:-

Meeting/event/workshop/interview	**Date**	**Venue**	**£**
MAXIMUM £20 IN A GIVEN WEEK			

TRAVEL EXPENSES CAN ONLY BE CLAIMED FOR THOSE VOLUNTEERING THEIR TIME OR WHERE THE OVERALL TOTAL IS NO MORE THAN £20 (E.g. claims for part-day interviews of £10 plus travel).

Daysaver / local bus, train or tram fare **Taxi (only by prior agreement/ agreed need)**	**£**
Car: _____ miles (at 33p per mile)	**£**

TOTAL CLAIM (MAXIMUM £20) £……...

The above is a true record of my fee entitlement for participation in this meeting/event. I understand that accepting the payment of a fee may affect my Benefits and/or Income Tax status and I undertake to declare this income to the relevant Statutory Authority.

Service user's signature…… Date ……..……

OFFICE USE ONLY
Authorised by Budget holder: ……..(print name) Signed:…….

Date:……..…… Budget code:……

Appendix 9. NVivo coding