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Faculty of Environmental and Life Sciences

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What is the Relationship between Psychosis and Help-Seeking, and Does Attachment Priming Facilitate Help-Seeking and Acceptance?

By

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ORCID ID 0009-0006-5192-5646

Thesis for the degree of Doctorate in Clinical Psychology

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Word Count: 28,519

University of Southampton

Abstract

Faculty of Environmental and Life Sciences

School of Psychology

Thesis for the degree of Doctor of Clinical Psychology

WHAT IS THE RELATIONSHIP BETWEEN PSYCHOSIS AND HELP-SEEKING, AND DOES ATTACHMENT PRIMING FACILITATE HELP-SEEKING AND ACCEPTANCE?

By

Laura Skrobinska

The first chapter of this thesis is a systematic literature review exploring the relationship between help-seeking behaviour and psychosis (subclinical and clinical populations). An online search of databases was conducted and 19 studies met the inclusion criteria. The results of the literature search were extracted and synthesised to create a narrative review. The results provide some understanding of when, why and from whom people seek or do not seek help. Higher level of education, experiencing more than one psychotic symptom, and female gender increased likelihood of help-seeking. There were differences between self- and informant-reported reasons for poor help-seeking/service engagement. There were also differences in preferred sources of help across cultures. The analysed studies had limitations, and most were assessed as low in quality, which suggests that more robust designs and reliable measures need to be used to assess help-seeking in psychotic populations.

The second chapter reports an experimental study exploring the impact of attachment priming (secure and avoidant) on state paranoia, help-seeking, and help-acceptance intentions in a clinical population. The self-selected sample (n=61) was recruited through an online research platform. Participants were randomly allocated to a secure or avoidant attachment priming condition and completed measures of state paranoia, help-seeking, and help-acceptance before and after the attachment manipulation. The findings showed that the secure attachment priming resulted in reduced paranoia and increased help-seeking and help-acceptance intentions, all with large effect sizes. This indicates causal links between attachment style and factors likely to affect duration of untreated psychosis. Additionally, this method could be used to facilitate service engagement with a group who face significant barriers to accessing recommended treatment.

Table of Contents

Table of Tables

Table of Figures

Research Thesis: Declaration of Authorship

Print name: LAURA SKROBINSKA

Title of thesis: What is the Relationship between Psychosis and Help-Seeking, and Does Attachment Priming Facilitate Help-Seeking and Acceptance?

I declare that this thesis and the work presented in it are my own and has been generated by me as the result of my own original research.

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Where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated;

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I have acknowledged all main sources of help;

Where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself;

None of this work has been published before submission.

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Abbreviations

DUP – Duration of Untreated Psychosis

DSM-5 – The Diagnostic and Statistical Manual of Mental Disorders - Fifth Edition

EPHPP – Effective Public Health Practice Project

ERGO - Ethics and Research Governance Online

ICD-10 – International Classification of Diseases -10th Revision

IWM – Internal Working Model

PRIMSA – Preferred Reporting Items for Systematic Reviews and Meta-Analyses

PROSPERO – International Prospective Register of Systematic Reviews

University of Southampton

Faculty of Environmental and Life Sciences

School of Psychology

Chapter 1: What is the Relationship between Psychosis and Help-Seeking Behaviour? A Systematic Literature Review.

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Word Count: 6,066

This review has been prepared for submission for "Psychology and Psychotherapy: Theory, Research and Practice". The submission guidelines can be found in Appendix A.

Abstract

Purpose

People with psychosis often delay seeking help which decreases their likelihood of receiving early and recommended treatments and increases the duration of untreated psychosis (DUP). This serious ongoing concern is voiced in research, and yet there is no clear understanding of the reasons for these delays. This systematic review synthesises the research that examines the relationship between professional (including service engagement) and non-professional help-seeking and psychosis in clinical and subclinical populations.

Methods

I searched four databases (APA PsycINFO, APA PsycArticles, Medline and British Library EThOS) to gather a comprehensive account of the literature and identify quantitative studies. Heterogeneity of the results precluded a meta-analysis, so I completed a narrative synthesis of the research to date.

Results

Nineteen articles were synthesised (9686 participants). Facilitators of help-seeking include higher level of education, experiencing more than one psychotic symptom, and female gender. Perceived stigma, low level of mental health literacy, and lack of family support are the main self-reported help-seeking barriers. Those reported by clinicians included higher severity of psychotic symptoms, childhood physical abuse, and insecure attachment style. There are also differences in preferred sources of help across cultures. There is no current consensus on a reliable help-seeking measure across studies.

Conclusions

This review is the first to examine the relationship between help-seeking behaviour and psychosis. There is a relationship between help-seeking and people' gender, education, attachment styles, and culture. Engagement efforts should be targeted towards those less likely to seek help early, to reduce DUP.

Keywords: Psychosis, schizophrenia, psychotic-type experience, help-seeking behaviour, support seeking, service engagement

Practitioner points

- Male gender, older age, lower levels of education and mental health literacy are associated with poor help-seeking behaviour in psychosis, therefore clinicians should be mindful of that and target those groups who are at risk to delay help-seeking, to reduce DUP.
- As insecure attachment style and avoidant coping strategy provide barriers for people with psychosis to engage with services, therefore awareness of different attachment styles regarding help-seeking behaviour should be widely shared with mental health professionals, so that they can offer increased support to insecurely attached individuals.

What is the Relationship between Psychosis and Help-Seeking Behaviour? A Systematic Literature Review

Introduction

Psychosis refers to a range of experiences that differ from commonly shared reality. These include hallucinations (hearing, seeing, testing, smelling, or feeling things that are not experienced by other people), delusions as false beliefs conflicting with reality e.g., paranoid (conspiracy beliefs that no one else shares) or grandiose (strong beliefs about being special), and confused thinking (confusing and disturbed patterns of thoughts) (Cooke, 2017). Delusions are reported by about 70% of people with a first episode of psychosis, and auditory hallucinations are reported by 75% of people with schizophrenia (Choong et al., 2007).

The National Institute for Health and Care Excellence (NICE, 2014) recommends that people with a first episode of psychosis should be offered a full range of interventions: pharmacological (oral antipsychotic medication), psychological (family intervention or Cognitive Behaviour Therapy), social (peer support and self-management programmes), occupational and educational (employment programmes, pre-vocational training), and it is crucial that people seek help from these treatments promptly. People with psychosis often delay seeking help which decreases their likelihood of receiving early and crucial treatment (Miodownik et al., 2019), and increases the duration of untreated psychosis (DUP). DUP is defined as the time between the first occurrence of psychotic symptoms and the start of pharmacological therapy (Marshall et al., 2005). Given that on average it takes 12-24 months to start treatment (Brunet & Birchwood, 2010; Kane et al. 2016; Riecher-Rossler et al., 2006), the WHO (2001) has identified DUP reduction as a worldwide priority.

DUP reduction is important as it is associated with poor health outcomes, more severe symptoms, and heightened relapse risk (Boonstra et al., 2012). DUP has negative effects not

only on patients, but also the healthcare system (Knapp, 1997). Groff et al. (2021) randomised psychotic patients to either a three-year extension of early intervention service group or regular care group and found that the healthcare costs for people with DUP longer than 12 weeks were significantly higher than for patients with DUP of 12 weeks or fewer (approximately $12000 difference). Hence, providing an early psychotic treatment is crucial for people with psychotic symptoms and the healthcare system (Cooke, 2017).

Help-seeking incorporates professional help-seeking (seeking support from professionals i.e., psychiatrists, psychologists, general practitioners (GPs) etc.), and non-professional help-seeking (e.g., seeking support within a close social network such as family or friends). Studies that explore help-seeking behaviour in individuals with mental health difficulties often investigate people's preferences and frequency of contacts with different sources of help, as well as barriers to seeking support. The choices of different sources of support can vary for people depending on their culture, religion (Cowan et al., 2012; Smolak et al., 2012; Thirthalli et al., 2014) and mental health literacy (Jorm, 2012). In interview-based studies of people with psychosis, people described a range of barriers to help-seeking, including fear of stigmatization, lack of awareness about mental health difficulties and limited knowledge about available treatment and care options, and lack of social network support (Anderson et al., 2012; Boydell et al., 2006). There seem to be many barriers that negatively influence people's decisions about active help-seeking and previous reviews have examined this issue regarding other mental health conditions, e.g., depression, anxiety (Gulliver et al., 2012), and obsessive-compulsive disorder (Hathorn et al., 2021). To the best of our knowledge this is the first review of research about the relationship between help-seeking behaviour and psychosis.

In the healthcare literature, professional help-seeking is often described and assessed under the broader term 'service engagement', which incorporates patients' availability for

appointments, collaborative responsibility for the management of healthcare needs, help-seeking from professionals, and adherence to treatment (Tait et al., 2002). Poor service engagement has been observed in young individuals with psychosis. This is particularly concerning given that the peak onset of psychotic disorders occurs in adolescence or early adulthood, which can be followed by severe deterioration in the first two to three years from illness onset (Birchwood et al., 1998). Poor service engagement is also reflected in dropout rates for treatment interventions for psychosis which have been found to be significantly high and range from 25% in people with schizophrenia, to approximately 30% in cases with first episode of psychosis and psychotic disorders (Doyle et al., 2014; Kreyenbuhl et al., 2009).

Previous reviews have explored specific factors that influence help-seeking behaviour and service engagement in psychotic populations. Smolak et al. (2012) explored how religion influences beliefs about help-seeking behaviour and sources of help and found that in some cultures where religion and spirituality play an important role, family, spiritual leaders, and traditional healers may often be the first choice of support. Sood et al. (2022) examined how attachment influences help-seeking behaviour/service engagement and found that people with psychosis and secure attachment style are more engaged and seek more help than people with insecure attachment styles. This review also found that females are more likely to seek help than males (Sood et al., 2022). A third review focused on engagement with mental health services and specific psychological interventions and found that approximately 30% of people with a first episode of psychosis disengage from services and specific interventions such as Cognitive Behaviour Therapy. Factors related to poor engagement were initial severity of symptoms, DUP, substance misuse and lack of family involvement (Doyle et al., 2014). Reviews to date have focused on specific factors (i.e., religion and attachment) to understand help-seeking behaviour or investigated engagement with specific interventions (after they had decided to seek help and managed to get through the first door of services),

and not initial help-seeking behaviour that has been argued to contribute to longer DUP (Brunet et al., 2007).

The psychosis continuum (van Os et al., 2009) assumes that psychotic-type experiences range from those characteristics of clinical populations to the anomalous experiences and social-evaluative concerns reported by people in the general population. Individuals with psychosis may receive clinical diagnoses such as schizophrenia, or they may experience psychotic symptoms which can be referred to as psychotic-type experiences (Cooke, 2017). The frequency, intensity, and level of distress of experiences may distinguish clinical and non-clinical populations, explaining why the prevalence of psychotic symptoms is higher than the prevalence of psychiatric disorders (van Os et al., 2009).

This systematic review aims to examine the relationship between help-seeking behaviour and psychosis in clinical and subclinical psychotic populations. A detailed understanding of help-seeking barriers and preferences in people with psychosis may inform efforts to DUP and provide appropriate healthcare to people with psychosis.

Methods

A review protocol was registered in the public domain (PROSPERO Registration: CRD42022342609).

Search Procedure

This systematic review was carried out in line with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA; Page et al., 2021). I searched four databases: APA PsycINFO, APA PsycArticles, Medline and British Library EThOS, to gather a comprehensive account of the literature and identify published and unpublished quantitative studies exploring help-seeking behaviour/service engagement in people with

psychosis/psychotic type experience. The databases were searched from inception to 15.01.2023. I used two search strings: psychos?s OR psychotic OR schizophreni* AND "help-seek*" OR "help seek*" OR "support seek*" OR "support-seek*" OR "service engagement" OR seek* N1 (service OR intervention OR referral). Reference lists and citations from previous relevant reviews (Doyle et al., 2014; Smolak et al., 2012; Sood et al., 2022) and eligible articles were also hand-searched.

Inclusion and Exclusion Criteria

I included studies if the following criteria were met: (1) quantitative methodology, (2) published in the English language, (3) included people aged 14 years and above with examined associations between clinical psychosis diagnoses (defined by DSM or ICD) or psychotic-type experiences, and help-seeking/service engagement behaviour, (4) referred to help-seeking as professional and/or non-professional support-seeking, and service engagement as availability for appointments, collaborative responsibility for the management of difficulties, help-seeking, and adherence to treatment (following Tait et al., 2002), (5) measured and/or screened for psychosis/schizophrenia/psychotic-type experience, (6) measured and/or assessed help-seeking/service engagement.

Exclusion criteria were: (1) studies that used qualitative methodology only, (2) books, book reviews, book chapters, conference extracts, case reports and systematic reviews, (3) studies that did not examine the relationship between psychosis and help-seeking behaviour.

Screening and Data Extraction

I exported all results from the initial main search (n=1,572; after screening for language, source type and participant age) to the reference manager Zotero which removed duplicates. I established eligibility in two subsequent stages: (1) title and abstract search and (2) full text article search. Data were extracted by the author and checked by an independent

reviewer. Discrepancies/uncertainties in the data extracted were reviewed with the wider research team until an agreement was achieved. Figure 1.1 displays the flow diagram of studies through the different stages of the systematic searches (i.e., identification, screening, eligibility and included records).

Quality Assessment

Following PRISMA recommendations, I quality assessed the studies by using the Effective Public Health Practice Project tool (EPHPP; Thomas et al., 2004). The EPHPP allows quality assessment of different quantitative study designs and has good content and construct validity (Thomas et al., 2004), and inter-rater reliability (Armijo-Olivo et al., 2012). The EPHPP includes six components against which studies are rated: (1) Selection Bias, (2) Study Design, (3) Confounders, (4) Blinding, (5) Data Collection Methods (reliability and validity), (6) Withdrawal and Dropouts. The overall quality of each study was based on assessment of all the six components. Studies are classified as: (1) Strong (S; no weak rating), (2) Moderate (M; one weak rating), (3) Weak (W; two or more weak ratings). Components were rated in accordance with the standardized guide and dictionary (Thomas et al., 2004).

The author and an independent reviewer completed the quality assessment individually. Any discrepancies were discussed and reviewed between them. Cohen's k was calculated to determine the agreement between reviewers and inter-rater reliability, which showed almost perfect strength of agreement, $k = 0.906$ (95% CI, 0.83 to 0.97), $p<0.001$ (Cohen, 1960; Landis & Koch, 1977).

Results

Nineteen studies met the inclusion criteria. Table 1.1 shows the data extracted. The majority of studies were cross-sectional (n=16), and three were longitudinal in design. Studies were conducted in multiple countries: United Kingdom (n=4), Switzerland (n=4), Canada (n=2), China (n=2), United States of America (n=1), Italy (n=1), India (n=1), Norway (n=1), Germany (n=1), Egypt (n=1), and Turkey (n=1). Studies were published between 2002 and 2022 showing an increased interest in this field over the last decade. The heterogeneity of help-seeking measures precluded a meta-analysis (see below). I therefore completed a narrative synthesis of the literature.

Demographic Characteristics

Across all studies, the total number of participants was 9686, of which 49% were male (n=4741), and 51% were female (n=4945). Fourteen studies recruited clinical samples (n=1979; 19.4%), five recruited subclinical psychosis samples (n=7707; 75.7%). The main diagnosis among participants from the clinical samples was schizophrenia (n=1669; 84.3%), followed by other disorders e.g., schizoaffective disorder and first episode of psychosis. Three studies included participants aged 13 and above (Ibrahim Awaad et al., 2020; Rüsch et al., 2013; Xu et al., 2015), which went beyond the inclusion criteria of the current review (age >= 14). These studies were included in the main analysis as the majority of participants met the inclusion criteria (mean age ranged from 20 to 34). The ages of the samples of the remining 16 studies ranged from 14 to 69 years. Five studies reported participants' ethnicity; of these, 51% identified as White, followed by other ethnic groups including Chinese (21%) and Hispanic (11%), Black (10%) and Asian (6%).

Measures

Psychosis/Schizophrenia

Ten different measures were used across the 19 studies. The most commonly used measure was the Positive and Negative Syndrome Scale (PANSS; Kay et al., 1987) used in nine studies as a measure of positive (e.g., delusions, hallucinations) and negative (e.g., emotional, or social withdrawal) symptoms of schizophrenia and general psychopathology (Addington et al., 2002; Degnan et al., 2022; Jilani et al., 2018; Johansen et al., 2011; Platz et al., 2006; Rüsch at al., 2013; Tait et al., 2003; Tait et al., 2004; Xu et al., 2015). Eleven studies used the Structured Clinical Interview for DSM-IV Axis I Disorder (SCID-I) or ICD-10 to assess or confirm patients' diagnoses, mostly in addition to other measures (Addington et al., 2002 ; Del Vecchio et al., 2015; Jilani et al., 2018; Johansen et al., 2011; Judge et al., 2005; Tait et al., 2003; Tait et al., 2004; Hu et al., 2021; Ibrahim Awaad et al., 2020; Tang et al., 2007; Yazici et al., 2016). Two studies used the Instrument for the Retrospective Assessment of the Onset of Schizophrenia (IRAOS; Häfner et al., 1992), which measures onset and early course of severe mental disorders, such as schizophrenia and affective psychosis (Addington et al., 2002; Schultze-Lutter et al., 2015). Another two studies used the Brief Psychiatric Rating Scale (BPRS; Ventura et al., 2000) to measure psychiatric symptoms (Del Vecchio et al., 2015; Lecomte et al., 2008). The Scale for the Assessment of Prodromal Symptoms (SOPS; Miller et al., 1999) was also used by two studies to determine the presence of early psychotic symptoms (Addington et al., 2002; Platz et al., 2006).

Several measures were each used in just one study, including the Schizophrenia Prediction Instrument—Adult Version (SPI-A; Schultze-Lutter et al., 2006) used by Schultze-Lutter et al., (2015), the Psychosis Screening Questionnaire (PSQ; Bebbington & Nayani, 1995) used by Murphy et al. (2010), and the Schizophrenia Onset Symptom (SOS) Inventory

(Perkins et al., 2000) used by Judge et al. (2005). Lastly, the Basel Screening Instrument for Psychosis (BSIP; Riecher-Rössler et al., 2008) used by Fridgen et al. (2013).

Service Engagement

All five studies that assessed service engagement used the Service Engagement Scale (SES; Tait et al., 2002) and service users' engagement was rated by clinicians (Degnan et al., 2022; Johansen et al., 2011; Lecomte et al., 2008; Tait et al., 2003, Tait et al., 2004).

Help-seeking

All but one study (Fridgen et al., 2013) that assessed self-reported help-seeking behaviour, used non-standardised, self-developed measures. Eight of them did not name their self-developed measures and they mostly included questions about sources of help (e.g., family, GP, psychiatry, traditional healers), types of accepted treatment (e.g., medication, psychotherapy), reasons for seeking or not seeking help, and frequency of contacting sources of help (Addington et al., 2002; Hu et al., 2021; Ibrahim Awaad et al., 2020; Jilani et al., 2018; Murphy et al., 2010; Platz et al., 2006; Tang et al., 2007; Yazici et al., 2016). Two studies used a non-standardised measure of help-seeking attitudes that included a 2-item scale asking for willingness to take medication and use professional therapy (Rüsch at al., 2013; Xu et al., 2015). A 'Pathways to Care' measure was used in three studies (Del Vecchio et al., 2015; Judge et al., 2005; Schultze-Lutter et al., 2015) and measured first help-seeking sources of care for mental health problems and/or reasons for not seeking help. A 'Family Involvement in Pathways to care Schedule' (FIPS; Del Vecchio et al., 2015), was an interview with a schedule used to examine family involvement in help-seeking, and reasons for not seeking a professional treatment. The Basel Interview for Psychosis (BIP; Riecher-Rössler et al., 2015) assessed help-seeking as one of the subscales which was used by Fridgen et al. (2013).

Study Quality Assessment

Results of the quality assessment are reported in Table 1.2. Two studies were moderate in quality (Tait et al., 2003; Tait et al., 2004), and the remaining 17 were weak. Most of the studies had moderate selection biases due to recruiting participants opportunistically from hospitals, mental health clinics and centres.[1] The majority of studies (n = 16) were cross-sectional which did not allow inferences about the direction of relationships to be made, and only three studies were longitudinal (Tait et al., 2003; Tait et al., 2004; Xu et al., 2015). In addition, 13 studies used unvalidated help-seeking measures developed for the purpose of those studies. Five studies controlled for confounders, e.g., gender or age (Degnan et al., 2022; Lecomte et al., 2008; Rüsch et al., 2013; Tait et al., 2003; Tait et al., 2004).

Synthesis of Evidence Examining the Relationship between Help-seeking and Psychosis

Self-Reported Help-Seeking and Psychosis

Fourteen studies investigated the relationship between self-reported help-seeking behaviour and psychosis (Addington et al., 2002; Del Vecchio et al., 2015; Fridgen et al., 2013; Hu et al., 2021; Ibrahim Awaad et al., 2020; Jilani et al., 2018; Judge et al., 2005; Murphy et al., 2010; Platz et al., 2006; Rüsch at al., 2013; Schultze-Lutter et al., 2015; Tang et al., 2007; Xu et al., 2015; Yazici et al., 2016). These studies examined when people sought help and from whom, as well as perceived barriers.

When Do People Seek Help? Six studies found that people typically do not seek help in the pre-onset period, and usually start looking for help after the onset of positive psychotic symptoms (Ibrahim Awaad et al., 2020; Johansen et al., 2011; Judge et al., 2005; Murphy et al., 2010; Platz et al., 2006; Schultze-Lutter et al., 2015). From the onset of symptoms to the

[1] Selection bias was rated according to EPHPP Quality Assessment Tool for Quantitative Studies Dictionary. "Participants are more likely to be representative of the target population if they are randomly selected from a comprehensive list of individuals in the target population (score very likely). They may not be representative if they are referred from a source (e.g., clinic) in a systematic manner (score somewhat likely) or self-referred (score not likely)."

point of recognising changes in behaviour and cognition, it took individuals between 4.5 to 7.8 months (Del Vecchio et al., 2015; Judge et al., 2005). From the point of recognising the changes in presentation, it took on average 14.4 months to receive appropriate treatment (Judge et al., 2005). One study found that individuals with an early psychosis onset (below the age of 18) reported more help-seeking attempts before the onset of first positive symptoms (within the prodromal phase). The same study found that individuals with onset of psychosis after the age of 18 intended to seek help only after the onset of the first positive symptoms (Schultze-Lutter et al., 2015).

What Help Do People Seek? Eleven studies investigated sources of help and found that psychiatrists and psychiatric hospitals were the most common first source of help approached, followed by traditional healers, GPs, mental health professionals and lastly family and friends (Addington et al., 2002; Del Vecchio et al., 2015; Fridgen et al., 2013; Hu et al., 2021; Ibrahim Awaad et al., 2020; Jilani et al., 2018; Murphy et al., 2010; Platz et al., 2006; Schultze-Lutter et al., 2015; Tang et al., 2007; Yazici et al., 2016). Preferences for support sources are likely to be largely determined by participants' culture, therefore this is analysed in more detail, below.

Facilitators and Barriers to Help-Seeking. Six studies explored reasons or factors associated with help-seeking behaviour while experiencing psychotic symptoms. Factors that contributed to seeking professional help included: experiencing more than one negative and/or positive psychotic symptom (Fridgen et al., 2013; Murphy et al., 2010; Rüsch et al., 2013); higher education (Hu et al., 2021); lower stigma stress[2] and stronger self-labelling[3] (Rüsch et al., 2013; Xu et al., 2015). Five studies examined the impact of gender and found that females with psychosis were more likely to seek help earlier and more often than males

[2] Stigma stress – a belief that harm related to stigma is greater than resources to deal with the threat.
[3] Self-labelling - self-awareness of having a mental health problem.

(Fridgen et al., 2013; Lecomte et al., 2008; Murphy et al., 2010; Rüsch., 2013; Xu et al., 2015).

Factors that contributed to seeking non-professional help included: acceptance from society to visit non-professionals, high level of fear of feeling shameful or stigmatised while receiving psychiatric treatment, experiencing positive psychotic symptoms such as hallucinations and/or delusions, better accessibility and affordability of non-professional sources of help, belief that the symptoms were not serious, and distrust of professional sources of help and psychiatric treatments (Ibrahim Awaad et al., 2020; Tang et al., 2007).

Three studies examined the main barriers to seeking help (Hu et al., 2021; Judge et al., 2005; Xu et al., 2015). Two found that greater levels of perceived stigma and discrimination negatively influence people's help-seeking behaviour (Hu et al., 2021; Xu et al., 2015). Two studies found that lack of mental-health literacy (recognition of active psychotic symptoms and their seriousness), lack of knowledge about where to seek support, and financial unaffordability including the cost of transport and insurance were the most common reasons why people did not seek help when experiencing psychotic symptoms (Hu et al., 2021; Judge et al., 2005).

Informant-Reported Help-Seeking (Service Engagement) and Psychosis

Eight studies examined informant-reported help-seeking in clinical populations. Five studies explored patients' service engagement as reported by clinicians (Degnan et al., 2022; Johansen et al., 2011; Lecomte et al., 2008; Tait et al., 2003, Tait et al., 2004), and three studies investigated the patients' help-seeking behaviour as reported by their family members (Addington et al., 2002; Del Vecchio et al., 2015; Judge et al., 2005).

Clinician-Reported Help-Seeking. Three studies (Degnan et al., 2022; Johansen et al., 2011; Lecomte et al., 2008) found that more severe psychotic symptoms (majority

measured by PANSS) were associated with higher levels of disengagement from services in clinical populations. Lecomte et al. (2008) also found other predictors of service engagement; childhood physical abuse was associated with poorer engagement, and knowledge about customer rights and certain personality traits (i.e., high neuroticism and low agreeableness) predicted better service engagement. Tait et al. (2003, 2004) found that people with psychosis and a 'sealing over' (avoidant) recovery style and/or an insecure attachment style were more likely to disengage from mental health services and avoid seeking support than people with a secure attachment style and/or an 'integration' (responsive to and interested in the psychotic experience) recovery style. Psychotic symptoms did not predict service engagement at 3-month and 6-month follow-ups (Tait et al., 2003).

Family-Reported Help-Seeking. Three studies (Addington et al., 2002; Del Vecchio et al., 2015; Judge et al., 2005) examined family informant-report help-seeking in clinical populations and found that family members often made successful help-seeking attempts on behalf of the person with psychosis – from 44% to 80% of help-seeking initial contacts were made by patients' relatives. Del Vecchio et al. (2015) investigated beliefs of those family members who decided not to seek help for their relatives. Their reasons included beliefs that problems were related to misuse of substances or stress and that the problems were temporary. In addition, a fear of receiving a label of 'mad' and distrust of psychiatric treatment stopped some family members from seeking help for their relatives.

Cultural Aspects of Help-Seeking in Psychosis

Five studies were completed in Asia and Africa (Hu et al., 2021; Ibrahim Awaad et al., 2020; Jilani et al., 2018; Tang et al., 2007; Yazici et al., 2016), and the remaining fifteen studies were completed in North America and Europe. A comparison of the findings reveals differences across Northern and Southern hemisphere countries. All five studies completed in Asian and African countries (India, China, Egypt, Turkey), investigated professional and

non-professional sources of help, including traditional and faith healers. Across all five studies, 53% of participants initially sought treatment from traditional/faith healers. Social acceptance, affordability, and beliefs that problems were related to black magic or possession by a Jinn[4] were the most common reasons for choosing non-professional sources of help.

Six studies completed in Western-culture countries investigated sources of both professional and non-professional help (Addington et al., 2002; Del Vecchio et al., 2015; Fridgen et al., 2013; Murphy et al., 2010; Platz et al., 2006; Schultze-Lutter et al., 2015). Of these, only three included religious leaders as a non-professional source of help, i.e., priest or clergy (Addington et al., 2002; Fridgen et al., 2013; Schultze-Lutter et al., 2015) and none included traditional healers as a potential source of non-professional help.

Discussion

The Relationship between Help-Seeking Behaviour and Psychosis

This systematic review sought to synthesise the literature that examines help-seeking behaviour/service engagement in people with clinical and subclinical psychosis. This is important if we are to understand what stops people from seeking professional help and reducing DUP, which is associated with poor health outcomes, more severe symptoms, and heightened risk of relapse (Boonstra et al., 2012).

This is the first review examining the relationship between help-seeking behaviour and psychosis. This review found that people typically start looking for help after the onset of positive psychotic symptoms and recognising changes in their presentation which on average takes approximately eight months and another 14 months to obtain appropriate help. There are clear differences of preferred help sources for psychosis across different cultures and

[4] Jinn is a magical spirit, in Arabian and Muslim mythology, who may appear in the form of a human or an animal and possess a person.

religions which is supported by previous review (Smolak et al., 2012). Professional help-seeking, i.e., psychiatry, is the most investigated and reported source of help in the Western-culture countries. Non-professional help-seeking, i.e., traditional/faith healers, was the most common source of help sought by psychotic people in African and Asian countries. This is consistent with existing literature suggesting that individuals living in collectivistic cultures are less likely to seek professional help than people in individualistic cultures, due to higher fear of mental-health stigmatisation and more willingness to cope with mental health difficulties themselves or using non-professional support (Markus & Kitayama, 1991; Mojaverian et al., 2013).

This review showed that facilitators of help-seeking include higher level of education, experiencing more than one positive or negative psychotic symptom, and female gender. Several studies recruiting clinical and subclinical samples showed that females are more likely to seek professional help than males. This is in line with existing literature which highlights gender differences in help-seeking behaviour across mental health conditions and explain that men's hesitance to seek help may relate to their traditional roles of masculinity (Seidler et al., 2016; Thompson et al., 2016).

Higher levels of perceived stigma and discrimination, lower level of mental health literacy, financial affordability[5] and lack of family support are the main self-reported barriers in help-seeking and psychosis. However, barriers reported by clinicians differed from those reported by participants possibly due to being asked to report different information, and included: higher severity of psychotic symptoms, childhood physical abuse, avoidant coping style and insecure attachment style. The last two factors are consistent with Sood et al.'s

[5] In studies based in Egypt (Ibrahim Awaad et al., 2020), USA (Judge et al., 2005) and China (Tang et al., 2007).

(2022) systematic review which showed that securely attached individuals with psychosis are more likely to seek help and engage with services than those who are insecurely attached, particularly those with an avoidant attachment style.

Summing up, on average it takes eight months for people to start recognising changes in their presentation and another 14 months to obtain an appropriate treatment for psychosis. There are clear differences of preferred help sources across participants with different cultural backgrounds, i.e., individuals from Western countries tend to seek help from psychiatrists, whereas people from Asian and African countries tend to approach faith or traditional healers. Facilitators of help-seeking included higher level of education, higher number of psychotic symptoms, and female gender. People with psychosis are reluctant to seek help due to fear of stigmatisation and discrimination, lack of mental health literacy, financial affordability, and lack of family support. Help-seeking barriers observed and reported by clinicians differed from those reported by participants and included higher severity of psychotic symptoms, childhood physical abuse, avoidant coping style and insecure attachment style.

Methodological Limitations of the Literature and Gaps in the Field

A number of methodological limitations in the reviewed studies should be taken into account when considering the findings of this review. All but three studies were cross sectional in design, which make it difficult to determine the direction of causal relationships. Seventeen studies were quality-assessed as weak while two out of three longitudinal studies were rated moderate, both conducted by Tait et al. (2003; 2004). Therefore, we can have more confidence in Tait et al.'s (2003; 2004) findings that people with psychosis who have an avoidant recovery style and/or an insecure attachment style are more likely to disengage with mental health services and avoid seeking support than people with an integration recovery style and/or a secure attachment style.

Most of studies rated weak failed to use strong designs, control for confounders, and report on or use reliable and valid measures. Although there was a broad consensus on psychosis and service-engagement measures, there was no consensus or agreed standardised, reliable measures for help-seeking. Therefore, this review highlights the need of developing a valid and reliable help-seeking measure in order to explore help-seeking behaviour in psychosis more accurately.

This review reports overall findings across eleven countries around the world (including Europe, North America, Africa, and Asia) and yet the findings cannot be generalised cross-culturally as most of the help-seeking and psychosis measures were not culture-sensitive. Help-seeking measures developed for the European and North American countries did not include traditional or faith healers as a possible source of non-professional help which was reported as the main source of help for African and Asian countries. Similarly, as schizophrenia presentation differs across cultures, using Western psychotic measures cross-culturally has its applicability limitation (Aggarwal et al., 2012; Thakker & Ward, 1998). In addition, only three studies included religious leaders as potential sources of help, even though a previous review found that help-seeking behaviour may be strongly related to religious beliefs (Smolak et al., 2012). Several studies explored help-seeking behaviour in clinical populations retrospectively. This means that those findings were reliant on participants' memory and should be interpreted with caution. Lastly, the limited information about ethnicity from the studies reviewed also limits generalisability of the findings.

In summary, the main methodological limitations of the reviewed literature were related to most studies being cross-sectional and quality assessed as weak due to weak study designs, no control for confounders, and limited use of reliable and valid measures. The findings cannot be generalised cross-culturally as most of the help-seeking and psychosis

measures were not culture-sensitive. This review highlights the lack and need of developing a valid and reliable help-seeking measure that will be culture sensitive and explore help-seeking behaviour in psychosis more accurately. In addition, there is a need of developing a psychosis measure that will be reliable and valid for non-western cultures, i.e., Asian, or African countries.

Strengths and Limitations of the Review

This systematic review focused on examining the relationship between help-seeking and psychosis in clinical and subclinical populations (rather than analogue samples) to inform clinical practice and service level decisions about facilitating access to recommended psychosis treatments. A strength of this review included an exploration of both informant- and self-reported help-seeking measures, which provides a broader understanding of help-seeking behaviour through the patients, clinicians, and family perspectives. Another strength is that professional help-seeking was explored under the broader term of service engagement, which incorporates patients' availability for appointments, collaborative responsibility for the management of healthcare needs, help-seeking from professionals, and adherence to treatment (Tait et al., 2002). These help-seeking components are crucial to consider in order to help people to get through the front door of services and reduce DUP. This may then increase patients' health outcomes by reducing severity of their symptoms and risk of relapse (Boonstra et al., 2012), as well as reduce cost of psychosis treatment (Groff et al., 2021). Lastly, this review systematically synthesised a significant number of international studies showing differences in help-seeing behaviour in psychotic populations across many cultures.

The main limitation of this review is the lack of a meta-analysis due to considerable heterogeneity of help-seeking measures. This review identified that this field adopts a range of help-seeking measures that vary in reliability (many measures were designed for the purpose of the particular study) and focuses on different help sources (e.g., professional, non-

professional). Two studies in this review (Rusch et al., 2013; Xu et al., 2015) focused on help-seeking for psychiatric medication and psychotherapy specifically while others focused on help-seeking more broadly. The search terms for this review were selected to identify help-seeking broadly rather than for each possible source of support that might be indicated or preferred cross-culturally. For example, help-seeking preferences for psychotherapy for psychosis would constitute a separate review. Another limitation is the question of who/what is seen as professional help in different cultures. Following Tait's (2002) definition, I categorised some groups e.g., faith healers as non-professionals, however, in some cultures these groups can be regarded as professional practitioners. Further research is required to examine perceptions of professional and non-professional help-seeking and who is categorised in these groups in different cultures.

Implications for future research

The lack of a standardised, valid and reliable measure of help-seeking behaviour that can be used across cultures is now needed to progress the field. This review shows that there are cultural differences in preferred help sources, therefore, in the future, research should focus on more varied sources of help (e.g., faith or traditional healers) to acknowledge different cultures and religions and obtain more accurate findings.

There seems to be a gap in the literature about help-seeking in minority ethnic groups in Western studies. Therefore, future research should explore this to gain more awareness of help sources and help-seeking behaviour in all ethnic groups.

Lastly, future research should focus on further assessing help-seeking behaviour in people with psychosis and insecure attachment style as this group seem to be the least likely to engage with professional help, which is consistent with findings of two longitudinal studies

that were rated moderate on quality (Tait et al., 2003; 2004) and a previous review by Sood et al. (2022).

Clinical implications

Given that individuals with an early psychosis onset (<18 years) reported more help-seeking attempts before the onset of first positive symptoms, and individuals with onset of psychosis after the age of 18 sought help much later (Schultze-Lutter et al., 2015), mental health education in schools should include specific details regarding who and how to seek help if experiencing early psychotic symptoms. This should incorporate mental health literacy sessions, as its low level creates help-seeking barriers for people with psychosis (Hu et al., 2021; Judge et al., 2005). Knowing that men with psychosis find it more challenging than women to seek help and constitute a large portion of people diagnosed with schizophrenia (Ochoa et al., 2012), schools and healthcare services should raise awareness and offer early support to address barriers due to gender help-seeking roles.

This review shows that lack of family involvement negatively influences psychotic peoples' help seeking intentions. Therefore, through mental health campaigns, public health awareness should be increased regarding how to support people with psychosis and how important this may be in the DUP reduction. Media and mental health services should regularly share information regarding how to recognise first signs of psychotic symptoms to effectively support and signpost people with psychosis to appropriate help. Given that fear of stigmatisation and discrimination stops people from seeking help, it is likely that campaigns normalising psychosis would reduce perceived social stigma (Hu et al., 2021; Xu et al., 2015).

Finally, from a wider service perspective, awareness of different attachment styles regarding help-seeking behaviour should be widely shared with all mental health and

healthcare professionals, so that staff understand that these are linked. The results of this review indicate that offering attachment-congruent support (e.g., ensuring consistency of interactions with people who are anxiously attached, and taking a more assertive engagement approach with those who are avoidantly attached) may facilitate clinical outcomes in people with psychosis. As most of the studies were cross sectional, these hypotheses will need to be explored in experimental and/or longitudinal studies.

Conclusion

This review is the first to examine the relationship between help-seeking behaviour and psychosis. By systematically synthesising 19 international studies, this review found that people with psychosis tend to seek help after experiencing more than one psychotic symptom and their choices of help-seeking sources differs cross-culturally. People's help-seeking behaviour for psychosis relates to their gender, age, education, culture, and attachment styles. Their barriers to seek help highly relate to their fear of stigmatisation and discrimination, level of mental health literacy and lack of family involvement. Therefore, schools, media and healthcare services should raise more public awareness regarding psychosis, how to recognise psychotic symptoms and effectively seek help, so that people with psychosis have more public support, mental health awareness and less fear of stigma and discrimination. A valid, reliable, and culture-sensitive help-seeking measure needs to be developed to understand people's help-seeking behaviour more accurately.

Table 1. 1

Data Characteristics Extracted from Studies (n=19)

Study authors, date, and location	Study design	Study population	Sample characteristics	Measures - Psychosis	Measures - Help-Seeking/Service Engagement	Key findings
Addington et al., 2002 Canada	Cross Sectional	Adults with first episode of psychosis and completed the Calgary Early Psychosis Program (EPP) and a 1-year follow-up assessment	Clinical sample (n=86); Male (n=57); Female (n=29); Mean age=24	Instrument for Retrospective Assessment of the Onset of Schizophrenia (IRAOS); Positive and Negative Syndrome Scale (PANSS); Scale for the Assessment of Prodromal Symptoms (SOPS); DSM-IV diagnosis	Participants and family members assessed about services sought to address onset of symptoms.	In the pre-onset period 38% of people decided to seek help. 75% of people reported being concerned about their behaviours but were not willing to seek help. After the onset of psychosis, the most frequent sources of help that led to successful treatments were emergency services (52%), family physicians (18%), psychiatrists (18%) psychologists (8%) and family and friends (4%). People who most frequently contacted healthcare services were participants' relatives (44%), participants themselves (25%), health care professionals (20%), and friends, teachers, and the police (11%).
Degnan et al., 2022 United Kingdom	Cross Sectional	Black African and Caribbean adult participants diagnosed with non-affective psychosis, receiving treatment from the NHS in England	Clinical sample (n= 51); Male (n=36); Female (n=15); Mean age=42.38)	PANSS	Service Engagement Scale (SES)	Higher severity of patients' psychotic symptoms was associated with poorer staff-reported engagement. Network ethnic homophily (more ethnically similar social network) showed better engagement (F[1, 44] = 12.95, p = .001, R2 = .23), and higher racial/ethnic discrimination showed lower service engagement (F[1, 47] = 5.45, p = .024, R^2 = .10).
Del Vecchio et al., 2015 Italy	Cross Sectional	People with a first episode of non-affective psychosis, recruited at the outpatient unit of the Department of Psychiatry at the University of Naples	Clinical sample (n= 32); Male (n=22), Female (n=10); Mean age=26	The Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I); Brief Psychiatric Rating Scale (BPRS)	Pathways to Care Form (PCF); Family Involvement in Pathways to Care Schedule (FIPS)	Time between onset of psychotic symptoms and the first help-seeking attempt with a health professional was 17.6 (±45.0) weeks. Patients had firstly approached: psychiatrists (30%); GPs (38%), neurologist (21%) and psychologist (11%). 76% of relatives sought medical help. Reasons why family did not seek help included: beliefs that problems were not permanent, or associated with stress or substance abuse, concerns about labelling as 'mad', doubts in effectiveness of psychiatric treatments.
Fridgen et al., 2013 Switzerland	Cross-Sectional	Participants recruited at outpatient clinic; classified as ARMS	Subclinical sample (n= 98); Two groups: ARMS – Male	The Basel Screening Instrument for Psychosis (BSIP)	Basel Interview for Psychosis (BIP) Specifically developed measure	Reasons why participants sought help: self-perceived changes in well-being, suicidal attempts, self-harming, and crisis in the family/household. 94.1% of the FE participants and 81.4% of the ARMS had at least one sought help before arriving at the

Study authors, date, and location	Study design	Study population	Sample characteristics	Measures - Psychosis	Measures - Help-Seeking/Service Engagement	Key findings
		(at-risk mental state for psychosis), FE (first episode of psychosis), and patients not at risk for psychosis.	(n=36); Female (n=25); Mean age=26.8 FE – Male (n=25); Female (n=12); Mean age=31		for the purpose of the study	clinic. (Mann–Whitney U: 609.0; $p \leq 0.001$), indicated that women sought help more frequently than men. ARMS and FE asked for support the most commonly from: family, close friends, GPs, or psychiatrists.
Hu et al., 2021 China	Cross-Sectional	Individuals with schizophrenia recruited from a larger epidemiological survey study of severe major mental disorders	Clinical sample (n=367); Male (n=180); Female (n=187); age >15	SCID-I	A questionnaire developed for the purpose of the study to collect information about help-seeking e.g., sources of help, reasons for not seeking help	68.9% of participants looked for help and 31.1% of participants did not. The main reasons for not seeking help: fear of stigmatization and discrimination (72.9%); no mental health knowledge (64.5%), and treatment costs (50.6%). The higher level of education was associated with more positive help-seeking attitudes (χ^2=6.621, p=0.010; χ^2=12.821, p=0.005). The main sources of help were professional psychiatric services 64.6% (n= 163), non-medical options (i.e., traditional and/or faith healers) 30.8% (n=78), GPs and general hospitals.
Ibrahim Awaad et al., 2020 Egypt	Cross-Sectional	Individuals with schizophrenia recruited in an inpatient ward or outpatient clinic of the Institute of Psychiatry in Egypt	Clinical sample; (n=232); Male (n=192); Female (n=40); Mean age= 34.078	SCID-I	A questionnaire developed for the purpose of this study to assess help-seeking behaviour e.g., history of seeking help, frequency of using different sources of help	58.19% of participants firstly contacted psychiatrist (they believed that symptoms were related to a mental illness). 41,8% of patients chose to firstly seek help from a traditional healer. Reasons for contacting traditional healers were beliefs of being possessed by Jinn (21.55%), beliefs in black magic (12.7%), struggling due to envy (8.19%), acceptance from society to contact healers (30.39%), affordability (24.74%), easy access (16.49%). Main psychotic symptoms for contacting traditional healers were hallucinations (51.55%), delusions (29.9%), unusual behaviour (9.28%). 60.58% of family members advised patients to seek help from the traditional healer.
Jilani et al., 2018 India	Cross-Sectional	Participants with the first episode of schizophrenia and psychotic disorder recruited in a psychiatric centre.	Clinical sample (n= 151); Male (n=122); Female (n=29); Mean age=27.19	PANNS Diagnosis according to International Classification of Diseases, Tenth Revision (ICD-10)	A questionnaire developed for the purpose of the study collecting information about reasons for and delay in help-seeking.	The most frequent sources of help included: faith healers (60.3%), local practitioners (20.5%), mental health professionals (13.3%), GP (6.1%). Faith healers were chosen to be the most popular source of help by both groups, the high-awareness (46.9%) and the low-awareness (66.7%)

Study authors, date, and location	Study design	Study population	Sample characteristics	Measures - Psychosis	Measures - Help-Seeking/Service Engagement	Key findings
Johansen et al., 2011 Norway	Cross-Sectional	Individuals with first-episode schizophrenia spectrum psychosis recruited via psychiatric treatment units	Clinical sample (n=148); Male (n=84); Female (n=64), Mean age=35	PANSS Diagnosis according to DSM-IV	SES	Clinical psychotic symptoms were positively correlated with lower engagement. Positive symptoms predicted lower service engagement whereas excitative and negative symptoms showed a trend-level contribution.
Judge et al., 2005 USA	Cross-Sectional	Individuals with schizophrenia or schizoaffective disorder recruited via the Schizophrenia Treatment and Evaluation Program (STEP)	Clinical sample (n= 20); Male(n=15), Female (n= 5) Mean age=19.8	Schizophrenia Onset Symptom (SOS) Inventory Diagnosis according to DSM-IV	'Pathways to Care' developed for the purpose of the study to collect data on help-seeking behaviour e.g., source of help and reason for seeking/ not seeking help	Participants made less successful help-seeking attempts (n=4) than their relatives (n=16). 7.8 months (SD=8.5) was an average time from onset of symptoms to recognising changes in presentation by participants. From this stage, it requited on average 14.4 months (SD=16.9) to start a treatment. Mean DUP was 19.2 months (SD=17.8). Main help-seeking barriers included: difficulty in recognising active symptoms and its seriousness, lack of awareness of where to seek help, no financial affordability i.e., insurance or transport.
Lecomte et al., 2008 Canada	Cross-Sectional	Individuals with early psychosis recruited via an Early Psychosis Intervention (EPI) Program	Clinical sample (n=118); Male (n=72); Female(n=46); Mean age=25	The Brief Psychiatric Rating Scale — Expanded version	SES	Men presented with the lowest service engagement scores (χ^2 (1) =3.61, p<0.05, N= 112). Poor service engagement was strongly predicted by childhood physical abuse (β= 0.34, p<0.001), accounting for 12% of the variance. Personality traits: high neuroticism (β=−0.19, p<0.01) and low agreeableness (β= 0.25, p<0.01) resulted in higher service engagement level; accounting for 31% of the variance.
Murphy et al., 2010 United Kingdom	Cross-Sectional	Individuals with self-reported psychosis recruited from a general population sample from the Adult Psychiatric Morbidity Survey (APMS).	Subclinical sample (n=7266); Male (n=3159); Female (n=4107); Mean age=51.12	Psychosis Screening Questionnaire (PSQ)	Help-seeking assessed with questions about engagement with GP and therapy	Women attended GP appointments more frequently than men for both emotional problems (v^2 = 94.02, df= 1, p < 0.001) and physical problems (v^2 = 23.62, df= 1, p < 0.00), and were more willing to seek therapy (v^2 =3.83, df= 1, p = 0.03). Thought control, paranoia, and strange experiences indicated increased GP attendance. Experiencing two and more symptoms predicted higher level of help-seeking from GPs, and three or more symptoms predicted higher intention to seek therapy.

Study authors, date, and location	Study design	Study population	Sample characteristics	Measures - Psychosis	Measures - Help-Seeking/Service Engagement	Key findings
Platz et al., 2006 Switzerland	Cross-Sectional	Participants considered at-risk for psychosis referred to a clinic and assigned to groups: First Episode (FE), At-risk (AR), and Patient Control group	Subclinical sample (n=104); Male (n=76) Female (n=28); Mean age=23.2	Scale of Prodromal Symptoms (SOPS); Schizophrenia Prediction Instrument—Adult Version (SPI-A); PANSS	Help-seeking assessed with questions about type of help-seeking source, number of contacts, type of symptom leading to each help-seeking attempt	Mean number of contacts for three patient groups - 2.38 (SD: ±1.42; median: 3; range: 1–8) with no significant between-group differences (x^2 = 208.375, df= 2, p = 0.605). FE patients more often contacted mental health professionals (x^2 = 4.461, df= 1, p = 0.024). Main sources of help included: mental health professionals (60.3%), non-mental health professionals (39.7%). 83.7% visited at least once a mental health professional. 89% FE, 65% AR and 8% of control group patients stated positive symptoms at any stage of their help-seeking pathway (χ^2 = 35.483, df= 2, p < 0.001).
Rüsch et al., 2013 Switzerland	Cross-Sectional	Individuals at high-risk status for psychosis (aged 13-35) recruited in the context of a larger study on early recognition of psychosis	Subclinical sample (n= =172); Male (n=101); Female (n=71); Mean age=21.37	PANSS	Help-seeking were assessed with two items scale asking for willingness to take psychiatric medication and use psychotherapy	Attitudes towards therapy were more positive than for medication (t=10.03, p<0.001). Higher level of self-labelling and low stigma stress independently predicted more positive attitudes towards psychiatric medication. Lower level of stigma stress, negative psychotic symptoms, female gender, higher age, anxiety disorder diagnosis and more self-labelling predicted more positive attitudes regarding therapy (R^2=0.213)
Schultze-Lutter et al., 2015 Germany	Cross-Sectional	Individuals with first episode psychosis assessed as part of the Awareness project of the German Research Network on Schizophrenia	Clinical sample (n= 126); Male (n=74), Female (n=52); Mean age=30.1	Early Recognition Instrument based on the Instrument for the Retrospective Assessment of the Onset of Schizophrenia (ERIraos)	Pathways-to-Care questionnaire	95.2 % of people looked for help before the first inpatient treatment, and only 23.0 % before the onset of the first positive symptom ($x^2_{(1)}$ = 36.698, p<0.001). Frequently chosen sources of help included: mental health professionals (54.0 %), GPs (16.7 %), semi-professionals by (13.5 %). Early illness-onset group (patients < 18 years) reported more self-initiated help-seeking attempts before they experienced the first positive symptom. Adult-onset group were more likely to seek help after experiencing the first psychotic symptom.
Tait et al., 2003 United Kingdom	Longitudinal	Participants with schizophrenia receiving treatment for acute psychosis	Clinical sample (n= 50); Male (n=31); Female (n=19); Mean age=33.8	PANSS Diagnosis based on ICD-10	SES	Higher engagement in the integration (responsive) recovery style groups compared to the sealing-over (avoidance) recovery style groups. Differences between groups for the total SES score were found (F(3,31)=8.04, p<0.001, n^2 =0.44). Positive and negative symptoms scores measured at 3 months did not show correlations with the scores of service engagement measured at 6 months, and the follow-up.

Study authors, date, and location	Study design	Study population	Sample characteristics	Measures - Psychosis	Measures - Help-Seeking/Service Engagement	Key findings
Tait et al., 2004 United Kingdom	Longitudinal	Participants with schizophrenia receiving treatment for acute psychosis	Clinical sample (n= 50); Male (n=31); Female (n=19); Mean age=33.8	PANSS Diagnosis based on ICD-10	SES	The insecurely attached group showed lower service engagement mean scores (*M*=23.72, *SD*=10.74) than the securely attached group (*M*=10.07, *SD*=10.20): *t*=3.64, *p*<0.001, n^2=0.31.
Tang et al., 2007 China		Participants with schizophrenia recruited in an inpatient hospital	Clinical sample; (n=202); Male (n=98), Female (n=104); Mean age= 30.9	A questionnaire developed for the purpose of the study to access presenting symptoms, onset and duration. Diagnosis according to ICD-10	A questionnaire developed for the purpose of the study to access help seeking behaviour e.g., help-seeking process and treatment facilities used	59.4% of patients sought help from non-psychiatric source, and 40.6% from psychiatric hospital. Non-psychiatric help was obtained from: traditional Chinese medicine (32.7%), general hospitals (31.7%), using breathing exercise, traditional healing methods, praying (25.7%). Reasons for seeking support from non-psychiatric sources: fear of stigmatisation and feeling ashamed (38.3%); difficulties with hospital accessibility (36.7%); fear of electric shock treatment (26.7%); disbelieve in symptoms seriousness (31.7%); no trust in psychiatrists/ their treatment (16.6%); treatment costs (15.8%).
Xu et al., 2015 Switzerland	Longitudinal	Participants (aged 13-35) with high risk of psychosis recruited via Early Recognition Program	Subclinical sample, at baseline (n= 172), 1-year follow up (n=67) Male (n=38); Female (n=29); Mean age =19.96	PANSS	Help-seeking attitudes were assessed with two items scale asking for willingness to take psychiatric medication and use psychotherapy	After a year, positive attitudes towards psychiatric medication were predicted by fewer negative symptoms and more self-labelling. A higher level of perceived stigma, stigma stress and positive psychotic symptoms resulted in more negative attitudes towards psychotherapy after one year. Females presented with more positive attitudes towards psychotherapy after a year than men.
Yazici et al., 2016 Turkey	Cross-Sectional	Participants diagnosed with schizophrenia in the psychiatric clinics and community mental health centres	Clinical sample (n=346); Male (n=236); Female (n=110); Mean age=39.52	SCID-I	A questionnaire developed for the purpose of the study to access help seeking i.e., traditional, and medical treatments	89.3% of participants sought help from traditional/religious healer for schizophrenia treatment at least once. Traditional healers were visited from 1 to 45 times, the average frequency was 6.54±7.0 visits. Patients' relatives who did not contact traditional healers showed a higher level of education than the relatives of the patients who sought help from traditional healers (9.30±4.07 and 5.80±3.71, respectively; *p*<0.05).

Table 1. 2

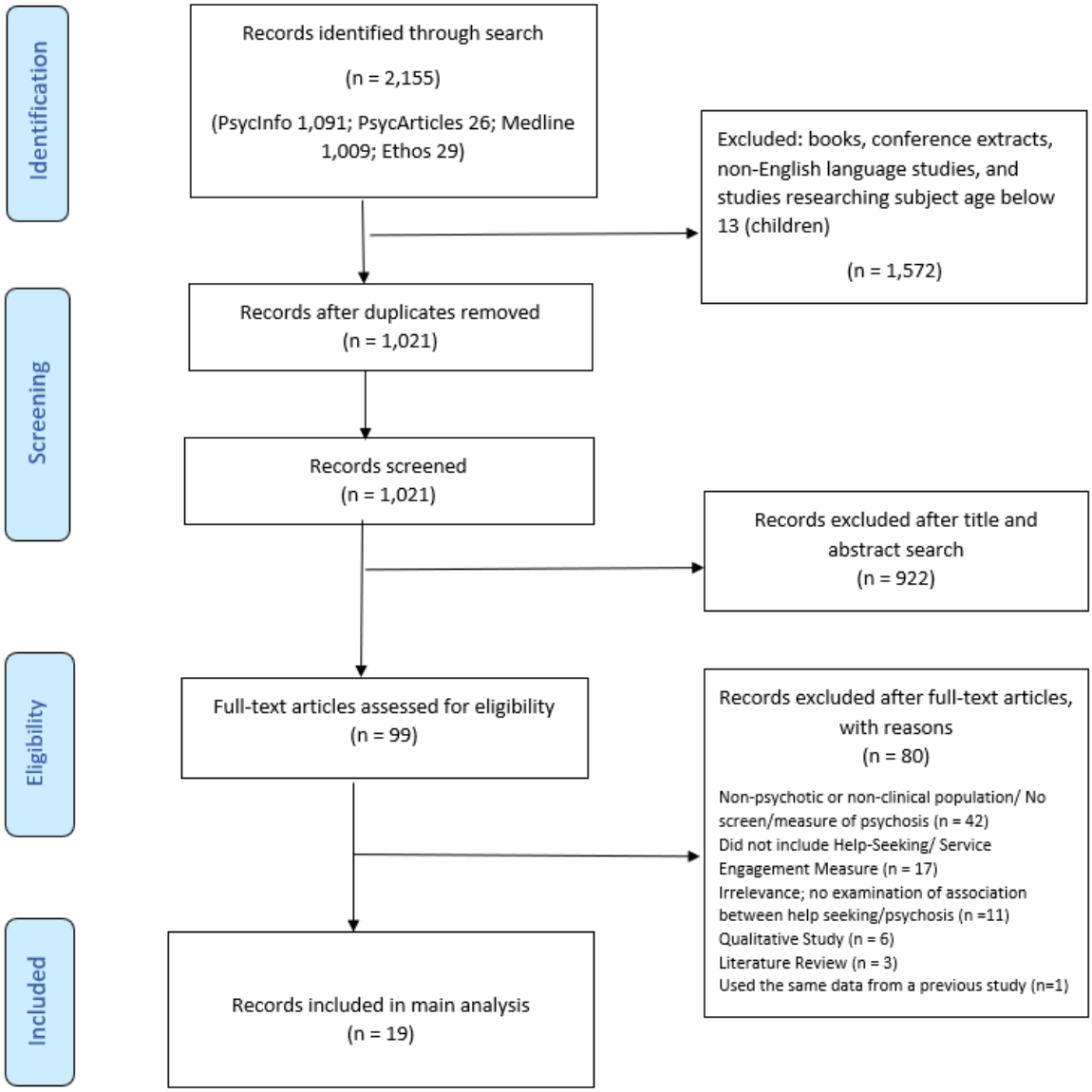
Quality Assessment Ratings (n=19)

Study	Selection bias	Study design	Confounders	Blinding	Data collection methods	Withdrawals & dropouts	Overall global rating
Addington et al., 2002; Canada	M	W	W	W	M	M	W
Degnan et al., 2022; United Kingdom	M	W	S	W	S	N/A	W
Del Vecchio et al., 2015; Italy	M	W	W	W	W	N/A	W
Fridgen at al., 2013; Switzerland	W	W	W	W	M	N/A	W
Hu et al., 2021; China	M	W	W	W	W	N/A	W
Ibrahim Awaad et al., 2020; Egypt	M	W	W	W	W	N/A	W
Jilani et al., 2018; India	M	W	W	W	W	N/A	W
Johansen et al., 2011; Norway	M	W	W	W	S	N/A	W
Judge et al., 2005; USA	M	W	W	W	W	N/A	W
Lecomte et al., 2008 Canada	M	W	M	W	S	N/A	W
Murphy et al., 2010; United Kingdom	W	W	W	W	W	N/A	W
Platz et al., 2006; Switzerland	M	W	W	W	W	N/A	W
Rüsch et al., 2013; Switzerland	M	W	M	W	M	N/A	W
Schultze-Lutter et al., 2015; Germany	M	W	W	W	W	N/A	W
Tait et al., 2003; United Kingdom	M	M	M	W	S	S	M
Tait et al., 2004; United Kingdom	M	M	M	W	S	S	M
Tang et al., 2007; China	M	W	W	W	W	N/A	W
Xu et al., 2015; Switzerland	W	M	W	W	M	W	W
Yazici et al., 2016; Turkey	M	W	W	W	W	N/A	W

Note. W = Weak, M = Moderate, S = Strong

Figure 1. 1

PRISMA Paper Selection Flow Diagram



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Chapter 2: Does Secure Attachment Facilitate Help-Seeking and Acceptance in People with Psychosis? An Experimental Study

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This paper has been prepared for submission for "Psychology and Psychotherapy: Theory, Research and Practice". The submission guidelines can be found in Appendix A.

Abstract

Objectives

Poor service engagement and prolonged duration of untreated psychosis predict poorer clinical and recovery outcomes. The aim of this study was to examine the impact of attachment priming (secure and avoidant) on state paranoia, help-seeking, and help-acceptance intentions in a clinical population. Previous experimental studies using secure attachment priming show that this method is effective in reducing paranoia and increasing help-seeking in non-clinical samples, but this has not been tested in people with psychosis. This is the first study to also examine the impact on help-acceptance intentions.

Design

This study used an experimental design. The independent variables were attachment prime condition (secure and avoidant) and time (pre- and post-priming manipulation), and the dependent variables were state paranoia, help-seeking, and help-acceptance intentions. A sample with self-reported psychosis was recruited.

Methods

The self-selected sample (n=61) was recruited through an online research platform. Participants were randomly allocated to a secure or avoidant attachment priming condition. All participants completed measures of state paranoia, help-seeking, and help-acceptance before and after the attachment manipulation.

Results

In comparison to avoidant attachment priming, secure attachment priming resulted in reduced paranoia and increased help-seeking and help-acceptance intentions, all with large effect sizes.

Conclusions

Attachment-security priming facilitates reduced paranoia and improved help-seeking and help-acceptance intentions in people with self-reported psychosis. This indicates causal links between attachment style and factors likely to affect duration of untreated psychosis. Additionally, this method could be used to facilitate service engagement with a group who face significant barriers to accessing recommended treatments.

Keywords: Psychosis, paranoia, help-seeking, help-acceptance, attachment, security priming, experimental

Practitioner points

- People with paranoia and avoidant attachment are particularly vulnerable to non-engagement and disengagement from services, which presents a significant barrier to accessing recommended treatments for psychosis.
- Secure attachment predicts help-seeking and help-acceptance intentions in people with psychosis.
- Secure attachment priming may be effective in reducing state paranoia and increasing help-seeking and help-acceptance intentions in routine clinical practice.

Does Secure Attachment Facilitate Help-Seeking and Acceptance in People with Psychosis? An Experimental Study

Introduction

Help-Seeking and Acceptance in Psychosis

Psychosis is a broad umbrella term for mental health conditions including a range of diagnoses (e.g., schizophrenia or schizoaffective disorder) and psychotic-type experiences (e.g., paranoia). These include 'positive symptoms' (e.g., hallucinations, delusions, thought disorder), 'negative symptoms' (e.g., signs of withdrawal and inexpression in presentation), and 'thought disorder' (e.g., confusing and disturbed patterns of thoughts) (Cooke, 2014). Individuals with psychosis typically seek help only after 12-24 months after experiencing initial symptoms (Boonstra et al., 2012), and often struggle to continue to accept help. This is reflected in high dropout rates for treatment interventions (Doyle et al., 2014) including Cognitive Behaviour Therapy (Fanning et al., 2012; Richardson & White, 2019). This leads to longer duration of untreated psychosis (DUP) resulting in delays to treatment and therefore recovery (Johnstone et al., 1986; Penttilä et al., 2014), and increased healthcare costs (Chaiyakunapruk et al., 2016; Groff et al., 2021). Help-seeking and help-acceptance are key behavioural outcomes in psychosis research designed to reduce DUP.

The Role of Attachment and Help-Seeking in Psychosis and Paranoia

Attachment insecurity is positively associated with both psychosis (Berry et al., 2008; Lavin et al., 2019; MacBeth et al., 2008) and poor service engagement (Tait et al., 2004), which describes people's availability for appointments, collaborative responsibility for managing healthcare needs, help-seeking from professionals and adherence to treatments

(Tait et al., 2002). According to Bowlby (1969), people are naturally predisposed to form attachments with others. People's early experiences with attachment figures in infancy and childhood shape 'internal working models' (IWM) which constitute templates for relationships in adulthood (Bowlby, 1969; Collins & Read, 1994). IWMs influence people's beliefs and behaviour in close relationships (Brennan et al., 1998; Collins & Read, 1990). Individual differences in attachment relationships are categorised as secure and insecure (anxious and avoidant) attachment styles (Collins & Read, 1990).

Attachment-secure individuals have usually experienced a consistent caregiver who is responsive and sensitive to their distress. Therefore, they have an opportunity to learn how to regulate their own emotions, trust other people, comfortably seek help, and feel secure in close relationships (Mikulincer & Shaver, 2016). Attachment-anxious individuals have experienced inconsistent caregivers who often respond differently to their distress, and so they learn to feel insecure in relationships, fear abandonment and demonstrate low levels of self-esteem and confidence in coping independently (Brennan et al., 1998). Attachment-avoidant individuals have usually experienced a rejecting caregiver who dismisses their distress, and therefore learn to be self-reliant, and view other people negatively; they often dismiss their own distress and emotions and reject close relationships due to feeling uncomfortable with proximity (Mikulincer & Shaver, 2016). People with insecure-avoidant attachment struggle to trust others and seek and accept offers of support in adulthood, making them particularly vulnerable to delays in mental health recovery (Adams et al., 2018).

Research suggests that people with insecure attachment are more likely to develop mental health difficulties and there is growing evidence for the higher prevalence of insecure attachment in psychosis compared to the general population (Bucci et al., 2017; Harder, 2014). These findings are in line with other evidence showing high levels of early adversity and trauma in psychosis populations (Varese et al., 2012), which have a negative impact on

experiencing safety and developing securely attached relationships (Lyons-Ruth & Block, 1996). Furthermore, people who have experienced early life trauma are more likely to present with paranoia (Sheinbaum et al., 2017) which is one of the most common symptoms of schizophrenia and occurs across the clinical and general population (van Os et al., 2000).

Studies examining both clinical (Wickham et al., 2015) and non-clinical (Pickering et al., 2008) psychosis populations found strong positive relationships between anxious and avoidant attachment and paranoia (Murphy et al., 2020). In addition, individuals with paranoia were found to have more negative views about seeking help (Bird et al., 2017; Harper & Timmons, 2019) due to relational threat beliefs (Freeman et al., 2005), avoidant attachment style (Berry et al., 2008; Tait et al., 2004) and avoidant coping techniques (e.g., substance misuse, denial, isolation) (Melo & Bentall, 2010). Previous research has also found that avoidant attachment causes difficulties in seeking help (Sood et al., 2021) and building strong therapeutic relationships with clinicians (Dozier, 1990; Dozier et al., 2001). Studies investigating anxious attachment and help-seeking yield less consistent results – some find showing positive (Berry et al., 2008; Caspers et al., 2006), and others find negative associations between these variables (Dozier, 1990; Vogel & Wei, 2005). People with insecure-avoidant attachment are particularly vulnerable to problems in help-seeking and acceptance behaviour.

Attachment Priming in Psychosis

State attachment describes the temporary activation of a particular attachment style (secure, anxious, or avoidant) (Carnelley & Rowe, 2007), in other words, how a person feels at this moment with regard to security. Attachment priming is an experimental cognitive procedure which induces state attachment (only for a short time) in order to test causal relationships by activating specific mental representations in memory (Gillath & Karantzas,

2019). Once the mental representation is temporarily activated, the relationship-specific attachment style also becomes temporarily active (Baldwin et al., 1996). This has been applied by researchers to understand different aspects of the cognitive processes associated with attachment IWMs and individuals' behaviour related to their attachment styles. To prime secure attachment, various methods have been tried e.g., using words related to security, pictures representing secure attachment figures, and asking participants to recall particular memories when they felt loved and secure (Gillath & Karantzas, 2019). Previous studies showed that security priming positively impacts mood, self-beliefs, relationship expectations and empathy (Carnelley & Rowe, 2007; Rowe & Carnelley, 2003; Shaver & Mikulincer, 2006). However, past research is primarily correlational which precludes causal inferences.

Priming manipulation methods have been used to facilitate processing of new information in a way that is consistent with the activated, 'primed' attachment pattern (Baldwin et al., 1996). Carnelley et al. (2010) found that security priming is a robust and reliable technique leading to felt security and positive feelings. In addition, people show changes in line with the situational stimulus (imagery prime) and temporarily move to this attachment style (state attachment), irrespective of their usual (trait) attachment style (Lai et al., 2018). Experimental studies have 'primed' (temporarily induced) avoidant, anxious and secure state attachment styles in order to test causal relationship with theory driven outcomes of interest (Sood et al., 2021). For example, avoidant attachment priming involves inducing a temporary state of attachment avoidance, so that associations with mood and behaviour can be examined.

Given that secure attachment is associated with good service engagement and less interpersonal difficulties (Gumley et al., 2014), activating this style may be effective in changing cognition and affect related to psychosis (Pitfield et al., 2020). A small number of

experimental and single-case studies using security priming show that this method is effective in reducing state paranoia and anxiety across non-clinical (Bullock et al., 2016; Newman-Taylor et al., 2017; Sood et al., 2021), and clinical samples (Newman-Taylor, 2020; Pitfield et al., 2020). In addition, secure priming has been shown to improve help-seeking intentions in people with non-clinical paranoia (Newman-Taylor et al., 2021; Sood et al., 2021). Although these findings are promising, this area of research is limited and studies are needed to establish whether facilitating secure attachment affects paranoia and help-seeking in clinical samples (Pitfield et al., 2020). Moreover, none of the previous studies have explored help acceptance intentions. The current research aims to determine whether secure attachment predicts help-seeking and help acceptance intentions in a clinical psychosis sample. This has implications for our theoretical understanding of the impact of attachment on help-seeking and acceptance in psychosis. Clinically, the attachment priming might also be used to foster help-seeking and acceptance in routine practice.

Aims and Hypotheses

The aim of this study was to examine the impact of attachment priming (secure/avoidant) on paranoia, help-seeking, and help-acceptance intentions in a clinical sample of people with self-reported psychosis. Priming method was used to allow the casual hypotheses investigation. Based on previous literature, the following hypotheses were developed:

1. Secure attachment priming will reduce state paranoia from pre-prime (Time 1) to post-prime (Time 2).
2. Secure attachment priming will increase help-seeking intentions from pre-prime (Time 1) to post-prime (Time 2).

3. Secure attachment priming will increase help-acceptance intentions from pre-prime (Time 1) to post-prime (Time 2).
4. At Time 2, those in the secure attachment priming condition will report less state paranoia than those in the avoidant attachment priming condition.
5. At Time 2, those in the secure attachment priming condition will report higher help-seeking intentions than those in the avoidant attachment priming condition.
6. At Time 2, those in the secure attachment priming condition will report higher help-acceptance intentions than those in the avoidant priming condition.
7. Compared to the avoidant attachment prime group, the secure attachment prime group will show higher felt security at Time 2 (post-prime manipulation check).

Methods

Ethical approval was received from the local university Ethics Committee (ERGO no: 71766; see Appendix B). The study was preregistered on Open Science Framework (https://osf.io/29nhw).

Design

I used an experimental design with one between-subject variable (prime: secure vs. avoidant attachment), and one within-subject variable (time: pre- vs. post-prime). The independent variables were: (1) attachment prime condition (2) time. The dependent variables were: (1) state paranoia; (2) help-seeking intentions; (3) help-acceptance intentions. The sample size was determined by a *priori* G*Power analysis, which indicated that, to detect a medium (0.25) effect size and obtain 95% power at $p < 0.05$, 54 participants were required, following Sood et al. (2021).

Participants

A sample of community-recruited adults (≥18 years) with fluent English and self-reported psychosis (including schizophrenia) was recruited online through Prolific[6]. This group was initially identified by the Centre for Innovation in Mental Health (CiMH) at a British university. CiMH used Prolific and a simple self-report questionnaire to screen individuals who identified as having mental health problems. Their questionnaire asked individuals about their specific experiences and diagnosis, as well as a source of receiving the diagnosis from, length of their experiences/diagnosis, current healthcare support, and medication intake. A pool of 119 people with self-reported psychosis (including schizophrenia) has been identified and they all were invited to take part in the current study.

Of 119 people that were eligible, 62 people opted into the current study. Of the 62 participants, one participant reported holding the attachment prime imagery in mind for 0% of time and was therefore excluded from analysis. The final sample included 61 participants with an age range of 20-60 years (M=33.44; SD=10.80). Table 2.1 gives demographic characteristics and shows that the current sample reported similar or higher severity paranoia compared with other clinical samples (Freeman et al., 2019).

Materials

Demographic Questionnaire

This self-report measure gathered information on age, gender, ethnicity, and nationality.

Trait Paranoia

[6] Prolific is a research platform to recruit participants who receive financial incentive in exchange for their data. Due to financial payment, the dropout rate on Prolific has been found to be relatively low (Palan & Schitter, 2018).

The Revised Green et al. Paranoid Thoughts Scale (R-GPTS; Freeman et al., 2019) has 18-items and yields two subscales: ideas of reference and ideas of persecution. Participants rated items on a 5-point Likert scale (0=*not at all* to 5=*totally*). Eight items of the reference subscale and 10 items of the persecution subscales are strongly discriminative of changes in paranoia and show high reliability across the spectrum of severity (α >0.90; Freeman et al., 2019). The current sample showed a good reliability for the reference scale was (α=0.89) and an excellent one for the persecution scale (α=0.94).

Trait Adult Attachment

The Short-Form of the Experiences in Close Relationships (ECR-12; Lafontaine et al., 2016) has 12-items and yields two attachment subscales: "Anxiety" consisted of 6 items (α=0.81; Lafontaine et al., 2016) and "Avoidant" also consisted of 6 items (α=0.79; Lafontaine et al., 2016). Participants rated items on a 7-point Likert scale (1=*strongly disagree* to 7=*strongly agree*). The current sample showed a good reliability for the anxiety scale was (α= 0.88) and an excellent reliability for the avoidant scale was (α= 0.92).

The Psychosis Attachment Measure- Revised (PAM-R; Pollard et al., 2020) has 26-items[7] and yields three attachment subscales: "Avoidant" consisted of 6 items (α=0.79, Pollard et al., 2020; current study α=0.79), "Anxiety" consisted of 8 items (α=0.87, Pollard et al., 2020; current study α=0.91) and "Disorganised" consisted of 9 items (α= .89, Pollard et al., 2020; current study α=0.93). Participants rated items on a 4-point Likert scale (0=*not at all* to 3=*very much*).

Hallucinations

[7] Following Berry (personal communication), 23 of the 26 items included in Pollard et al.'s (2020) original article were included in the present analyses, given the original factor analysis.

The Trait Auditory and Visual Hallucinations (Sood et al., in prep) has 4-items and measures at the extent to which participants experience auditory and visual hallucinations. Participants rated items on a 7-point Likert (1=*never* to 5=*almost always*). The current sample showed a good reliability (α=0.88). This scale was originally planned to be used as covariate in further analysis, however due to small sample size this was used to report on group differences.

Trait Help-Seeking

The Help-Seeking Measure-Trait (HSB-T; Sood et al., 2021) has 3-items and measures the usual (trait) help-seeking intentions when feeling upset (*α*=0.89; Sood et al., 2021; current study *α*=0.93). Participants rated items on a 5-point Likert scale (1=*not at all* to 5=*extremely*).

Trait Help Acceptance

I developed the Help Acceptance Measure-Trait (HAM-T) that is a 4-item scale to measure usual (trait) help-acceptance intentions when feeling upset. On a 5-point Likert scale (1=*not at all* to 5=*extremely*), participants rated how likely they were to accept emotional support and practical help from somebody, be willing to receive advice about their problems and help to make decisions. In the current study, the Cronbach's alpha for HAM-T showed a good reliability (α=0.88).

State Paranoia

The Adapted Paranoia Checklist (APC; Schlier et al., 2016) has 5-items and measures the state paranoia (α=0.88; Schlier et al., 2016). Participants indicated how much each statement applied to them "at the moment" – at each point of completing the measure. They rated items on 11-point Likert scale (0=*not at all* to 10=*very much*). In the current study, the

Cronbach's alpha for APC showed an excellent reliability at Time 1 (α=0.91), and at Time 2 (α=0.90).

State Help-Seeking

The Help-Seeking Measure-State (HSM-S; Sood et at., 2021) has 3-items and measures the current (state) help-seeking intentions (α=0.89; Sood et al., 2021). On a 5-point Likert scale (1=*not at all* to 5=*extremely*), participants rated how likely they were to contact, talk or ask for help if they were feeling upset at this point in time. In the current study, the Cronbach's alpha for HSM-S showed an excellent reliability at both time points (α=0.91).

State Help-Acceptance

I developed the Help Acceptance Measure –State (HAM-S) which has a 4-item state scale to measure current (state) help-acceptance intentions. On a 5-point Likert scale from (1=*not at all* to 5=*extremely*), participants rated how likely they were to accept emotional support and practical help from somebody, be willing to receive advice about their problems and help to make decisions, if they were feeling upset at this point in time. The Cronbach's alpha for HAM-S showed a good reliability at Time 1 (α=0.86), and Time 2 (α=0.88).

Experimental manipulation

Attachment Priming Manipulation

I used imagery scripts to prime secure or avoidant attachment (following Sood et al., 2021). Participants were asked to think about a situation when they were with another individual and felt safe, secure and trusting (secure attachment) or nervous and uncomfortable when this individual tried to get too close to them (avoidant attachment). Each prime included approximately 3 minutes long audio recording. Participants were asked to recall this situation and hold the attachment prime image in their mind as vividly as possible,

focusing on their different senses throughout the time completing the attachment priming task and subsequent questionnaires (approximately 7 minutes).

Manipulation Checks

Felt security (Luke et al., 2012) has a 6-point scale (1=*not at all* to 6=*very much)* on which participants rated their feelings based on how they felt after the attachment priming task i.e., feeling comforted, secure, supported, safe, loved, protected (α=0.97; Sood et al., 2021). In the current study, the Cronbach's alpha showed an excellent reliability (α=0.95). Participants were also asked to indicate the level of vividness of the image they had in mind on a 10-point scale (1=*not at all* to 10=*very much*). Lastly, they stated the percentage of time they were able to hold the image in mind (0% - 100%).

Procedure

I contacted pre-screened participants using their Prolific IDs and the research platform directed interested participants to the Qualtrics survey where they accessed the participant information sheet, consent form, all questionnaires and attachment imagery prime recording. Participants were informed that the study consistent of two parts (approximately 7 minutes each), and they were offered an incentive of £1.50 for completion each part.

Study Part 1

Participants completed consent form, demographic questionnaires, and trait measures. They were then thanked, paid, and informed about the second part of the study. The delay between part 1 and part 2 was to reduce participant burden and avoid trait attachment being primed by completing the Short-Form of the Experiences in Close Relationships (ECR-12).

Study Part 2

Two to five days after the first part of the study, participants were contacted and asked to complete the second part of the study on a computer with unmuted sound, alone, in a quiet space without distractions. Participants were randomised through Qualtrics and allocated to either the secure or insecure-avoidant attachment priming condition. Participants completed the pre-prime state measures, then listened to the attachment prime recording and then completed the post-prime state measures once more. Finally, they completed manipulation checks (levels of felt security, vividness of imagery i.e., attachment prime and the percentage of time the imagery was held in mind by individuals) and a mood repair task (to list the five best things in their life). Finally, they were debriefed and thanked.

Data Analysis

SPSS 28 was used for data analysis. Participants were excluded when more than 5% of the data from any single measure was missing (Tabachnick and Fidell, 2013) or when study part 2 and/or the attachment prime were not completed. Due to these reasons, 19 participants were excluded.

I considered assumptions by inspection of histograms and normality tests (Field, 2018). The data was mostly normally distributed for secure and avoidant groups, as assessed by Shapiro-Wilk's test of normality ($p > 0.05$). The persecution paranoia subscale was the only data that differed from a normal distribution for secure ($p = 0.041$) and avoidant groups ($p = 0.035$), which is to be expected given recruitment criteria. As the persecution subscale was used to examine pre-manipulation differences between groups, and not in the main analysis, this variable was not transformed. There were no outliers, as assessed by examination of studentized residuals for values greater than ±3.

I used one-way Analyses of Variance (ANOVA; Field, 2018) to test pre-manipulation group differences on demographic characteristics, trait measures and manipulation checks. Chi-square was used for gender. I used two-way mixed-model ANOVAs, with one between-subject factor (attachment imagery prime: secure vs. insecure-avoidant attachment), and one within-subject factor (time: pre- vs. post-attachment prime imagery task). Due to the sample size no covariates were included.

Results

Pre-Manipulation Between-Group Differences

Table 2.2 displays the descriptive statistics pre-manipulation. No differences were found ($p > 0.05$) between the secure and avoidant groups in age or trait measures: trait paranoia (persecution and reference subscales), help-seeking and help-acceptance, attachment styles (avoidant, anxiety, disorganised), and hallucinations. Furthermore, there were no differences in gender between the groups (X^2 (3) = 2.824, p=0.42).

Attachment Prime Manipulation Checks

No differences were found between secure and avoidant attachment groups in image vividness, $F(1, 60)=0.12$, p=0.733, and time the image was held in mind (in percentage), $F(1, 60)=0.19$, p=0.664. Felt security was effectively manipulated, $F(1, 60)=23.73$, $p<0.001$; the secure group reported a higher sense of security (M=3.69; SD=1.44), compared to the avoidant group (M=2.23; SD=0.86).

Two-Way Mixed ANOVA

A two-way mixed ANOVA was conducted to investigate the impact of time and attachment prime conditions on state paranoia, help-seeking, and help-acceptance. Means and

standard deviations for these dependent variables for both conditions (secure and avoidant) at both time points (pre-prime – Time 1, and post-prime – Time 2), can be seen in Table 2.3.

State Paranoia

There was no main effect of time, $F(1, 59)=2.41$, $p=0.126$, partial $\eta^2=0.04$. There was a main effect of condition, $F(1, 59)=5.40$, $p=0.024$, partial $\eta^2=0.08$, and an interaction between time and condition on state paranoia, $F(1, 59)=16.48$, $p<0.001$, partial $\eta^2=0.22$ (Figure 2.1). Those in the secure group ($M=25.95$, $SE=2.22$, 95% CI, 21.52 to 30.39) reported lower paranoia than those in the avoidant group ($M=33.18$, $SE=2.18$, 95% CI, 28.81 to 37.54).

Pairwise comparisons showed that, as predicted, at pre-prime there was no difference between the avoidant and secure groups ($p=0.268$; 95% CI, -2.94 to 10.40) in state paranoia. However, post-prime there was a significant difference between groups ($p=0.001$; 95% CI, 4.49 to 16.96), indicating that the secure group reported lower mean of paranoia than the avoidant group (see Table 2.3). Those individuals in the secure prime group showed a decrease in paranoia pre- to post-prime ($p<0.001$, 95% CI, 2.38 to 7.29), whereas those in the avoidant group showed a trend level increase in paranoia from pre- to post-prime ($p=0.079$; 95% CI, -4.58 to 0.26).

Help-Seeking

There was no main effect of time, $F(1, 59)=0.47$, $p=0.828$, partial $\eta^2=0.001$, or attachment condition, $F(1, 59)=0.42$, $p=0.518$, partial $\eta^2=0.007$, on help-seeking. There was a significant interaction between attachment condition and time on help-seeking (Figure 2.2), $F(1, 59)=14.21$, $p<0.001$, partial $\eta^2=0.19$.

See Table 2.3 for the groups' descriptive statistics. Pairwise comparisons showed that at pre-prime there was no difference between the avoidant and secure groups ($p=0.643$; 95%

CI, - 0.66 to 0.41), and at post-prime there was also no difference between the groups (p=0.104; 95% CI, - 0.1 to 1.03). However, as predicted, those individuals in the secure prime group showed the increase in help-seeking from pre- to post-prime (p=0.016; 95% CI, - 0.5 to -0.06), whereas those in the avoidant prime group showed a decrease in help-seeking from pre- to post-prime (p=0.006; 95% CI, 0.09 to 0.53).

Help-Acceptance

There was no main effect of time, $F(1, 59)=1.11$, p=0.297, partial η^2=0.018, or attachment condition, $F(1, 59)=2.56$, p=0.115, partial η^2=0.04, on help-acceptance. There was a significant interaction between attachment condition and time on help-acceptance (Figure 2.3), $F(1, 59)=18.49$, p<0.001, partial η^2=0.24.

Pairwise comparisons showed that at pre-prime there was no difference between the avoidant and secure groups (p=0.746; 95% CI, - 0.57 to 0.41). However, at post-prime there was a significant difference between groups (p=0.008; 95% CI, -1.17 to -0.18), indicating that the avoidant group showed a lower mean of help-seeking acceptance than the secure group (see Table 2.3). As predicted, those individuals in the secure prime group showed an increase in help-acceptance from pre- to post-prime (p=0.026; 95% CI, - 0.42 to - 0.03), whereas those in the avoidant prime group showed a decrease in help-acceptance from pre- to post-prime (p<0.001; 95% CI, 0.18 to 0.57).

Discussion

In this research, I aimed to investigate whether attachment priming impacts paranoia, help-seeking, and help-acceptance intentions in people with self-reported psychosis. The results support the hypotheses that the secure attachment priming reduces levels of state paranoia and increases levels of help-seeking and help-acceptance intentions from pre-prime to post-prime, with large effects (Cohen, 1973).

As predicted, those in the secure attachment priming condition reported less state paranoia, and higher help-seeking and help-acceptance intentions than those in the insecure-avoidant attachment condition post-prime. Individuals in the avoidant attachment group showed decreases in help-seeking and help-acceptance intentions from pre- to post-prime, and trend level increase in state paranoia.

The manipulation checks showed that the secure attachment prime group was effective in engendering felt security compared with the avoidant group post-prime. This suggest that the individuals in the secure attachment group felt more comforted, secure, supported, safe, loved, and protected than those in the avoidant group.

These findings add to the growing body of research showing that secure attachment priming reduces state paranoia in clinical samples (Pitfield et al., 2020), using a more robust experimental design. This research is the first to show that secure attachment increases help-seeking intentions in a clinical sample, consistent with previous non-clinical studies (Newman-Taylor et al., 2021; Sood et al., 2021). Moreover, this study is the first to explore the impact of attachment priming on help-acceptance intentions in a clinical sample. Given the experimental design, the results indicate causal rather than associative relationships between attachment style and paranoia, help-seeking and help-acceptance.

This study is consistent with previous experimental research (Sood et al., 2021) showing that attachment style has a causal effect on paranoia. Additionally, this is the first study to show that attachment style has a causal impact on help-seeking and help-acceptance in people with psychosis. This means that people with psychosis who present with the insecure-avoidant attachment are likely to be particularly vulnerable to prolonged DUP due to poorer help-seeking and acceptance intentions. These current findings support Tait et al. (2004), who found that people with psychosis and secure attachment engage more with

services than people with psychosis and insecure attachment. These results are important, given that people with psychosis struggle to seek and accept forms of help, which is reflected in long DUP and high dropout rate for psychotic treatments (Doyle et al., 2014; Penttilä et al., 2014).

In terms of clinical implications, the regular use of the secure attachment priming by care professionals could foster psychotic individuals' sense of security and increase likelihood of ongoing help-seeking. This could also potentially reduce DUP and dropout rates. Future studies may benefit from investigating how the secure attachment priming impacts DUP in people with psychosis to confirm this.

The current results confirm that only three minutes of using and activating a secure attachment prime can temporarily increase felt security in people with psychosis which aligns with previous studies (Newman-Taylor, 2020; Sood et al., 2021). Furthermore, repeated secure attachment priming is likely to have longer lasting effects and gradually move the avoidantly attached individuals toward chronic attachment security (Rowe & Carnelley, 2003).

Strengths and Limitations

In this study, no differences were found between prime attachment groups on trait variables and demographic information (i.e., age and gender). Thus, the effects are likely to be attributable to the manipulation. Moreover, all participants were randomly allocated to attachment priming conditions, and blinded to the research questions, which reduced the risk of bias. There was also a good gender balance.

This study recruited self-reported psychotic population, and therefore, future research would benefit from confirming participants' mental health diagnoses by using diagnostic

tools e.g., Diagnostic and Statistical Manual of Mental Disorders (DSM; American Psychiatric Association, 2013). This study did not control for potential confounding variables e.g., gender or hallucinations, due to small sample size. Furthermore, the majority of participants reported being White British, which limits generalizability of the results to wider racial and ethnic populations (Garza et al., 2017). This means that secure attachment priming works effectively in reducing state paranoia and increasing help-seeking and help-acceptance intentions in a White British clinical psychotic population, and its effectiveness for other racial and ethnic groups needs to be further researched.

This study used priming to test only one insecure attachment style (i.e., avoidant) because this attachment style has been consistently reported to be associated with poor help-seeking and help-acceptance behaviour (Adams et al., 2018; Berry et al., 2008; Dozier, 1990). Future research may benefit from examining the impact of anxious and disorganised attachment on paranoia, help-seeking and help-acceptance intentions in clinical populations.

Clinical Implications

This study shows that the secure attachment priming effectively facilitates changes in level of state paranoia, help-seeking, and help-acceptance intentions. Secure attachment priming could now be developed into a separate intervention or added to Cognitive Behaviour Therapy as a technique when working with people with psychosis. This could help patients feel more secure during their clinical appointments (after facilitating secure attachment) and increase their level of engagement and willingness to seek and accept forms of help offered by healthcare professionals. Repeated secure attachment prime could lead to activation of a higher sense of security and lower paranoia and as a result to a better therapeutic alliance between psychotic patient and a professional (Smith et al., 2010).

Even though people with psychosis frequently experience early trauma and childhood adversity (Varese et al., 2012), they are often not offered the cognitive behavioural interventions helpful with trauma (i.e., imagery rescripting; Morina et al., 2017) due to existing fear of increasing their psychosis and related risks (Sin et al., 2017). The current findings confirm that people with psychosis can successfully engage with short attachment-based imagery tasks and increase their sense of interpersonal safety related to secure relationships and decrease their state paranoia, which may be useful in emotionally demanding clinical sessions such as addressing trauma.

Conclusions

This experimental research found that secure attachment priming facilitates help-seeking and acceptance, as well as reduces state paranoia in people with clinical levels of psychosis. The findings show for the first time that attachment style is causally linked to help-seeking and help-acceptance intentions in people with psychosis. Secure attachment priming could be used in routine clinical practice to foster a sense of security and willingness to seek and accept help when people with psychosis are distressed.

Table 2. 1

Demographic Characteristic and Descriptive Statistics for Study Sample (n = 61)

Demographic Characteristic	Descriptive statistics	Comparison figure
Gender: n (%)		
Female	32 (52.5)	
Male	21 (34.4)	
Non-binary	7 (11.5)	
Prefer not to answer	1 (1.6)	
Nationality: n (%)		
British	59 (96.8)	
British/American	1 (1.6)	
Prefer not to answer	1 (1.6)	
Ethnicity: n (%)		
Asian	1 (1.6)	
Black Caribbean	2 (3.3)	
White British	52 (85.2)	
White Other	3 (4.9)	
Mixed	2 (3.3)	
Prefer not to answer	1 (1.6)	
Paranoia R-GPTS †: M (SD)		
Persecution subscale	16.59 (12.13)	13.70 (13.00) †
Reference subscale	15.05 (8.12)	15.80 (7.42) †

Note. † R-GPTS = Revised Green et al. Paranoid Thoughts Scale (Freeman et al., 2019). Clinical population – 1804 adult participants with psychotic disorder recruited from clinical settings. R-GPTS persecution subscale: average (0–4), elevated (5–10), moderately severe (11–17), severe (18–27), very severe (28+). R-GPTS reference subscale: average (0–9), elevated (10–15), moderately severe (16–20), severe (21–24), very severe (25+).

Table 2. 2

Descriptive Statistics for Demographic and Trait Measures in the Secure and Avoidant Prime Conditions

Variable	Secure (*N* = 30) *M (SD)*	Avoidant (*N* = 31) *M (SD)*
Age	35.70 (11.20)	31.26 (10.09)
Trait Paranoia (Persecution Subscale)	15.23 (11.79)	17.90 (12.50)
Trait Paranoia (Reference Subscale)	14.60 (8.38)	15.48 (7.98)
Trait Anxious attachment (ECR)	4.96 (1.52)	5.01 (1.42)
Trait Avoidant attachment (ECR)	4.18 (1.57)	4.46 (1.39)
Trait Anxious attachment (PAM-R)	2.71 (0.88)	2.75 (0.81)
Trait Avoidant attachment (PAM-R)	2.84 (0.69)	2.90 (0.64)
Trait Disorganized attachment (PAM-R)	2.59 (0.95)	2.48 (0.79)
Trait Help-Seeking (HSM-T)	2.61 (0.94)	2.56 (1.08)
Trait Help-Acceptance (HAM-T)	2.96 (0.81)	2.79 (1.04)
Trait Hallucinations	4.69 (1.54)	3.90 (1.79)

Note. ECR = Experiences in Close Relationships Inventory; PAM-R = Psychosis Attachment Measure- Revised; HSM-T = Help-Seeking Measure-Trait; HAM-T = Help Acceptance Measure -Trait.

Table 2. 3

Mean and Standard Deviations for State Paranoia, Help-Seeking and Help-Acceptance at Time 1 (Pre-Prime) and Time 2 (Post-Prime) in the Secure and Avoidant Prime Conditions

Variable	Secure (N = 30)		Avoidant (N = 31)	
	Time 1	Time 2	Time 1	Time 2
	M (SD)	M (SD)	M (SD)	M (SD)
State Paranoia (APC)	28.37 (12.00)	23.53 (12.39)	32.10 (13.92)	34.26 (11.95)
Help-Seeking (HSM-S)	2.49 (1.12)	2.77 (1.23)	2.61 (0.95)	2.30 (0.96)
Help-Acceptance (HAM-S)	2.97 (0.88)	3.19 (0.95)	2.89 (1.02)	2.52 (0.98)

Note. APC = The Adapted Paranoia Checklist; HSM-S = Help-Seeking Measure-State; HAM-S = Help Acceptance Measure-State.

Figure 2. 1

Interaction between Time (Pre-Prime and Post-Prime) and Attachment Condition (Secure and Avoidant) for State Paranoia

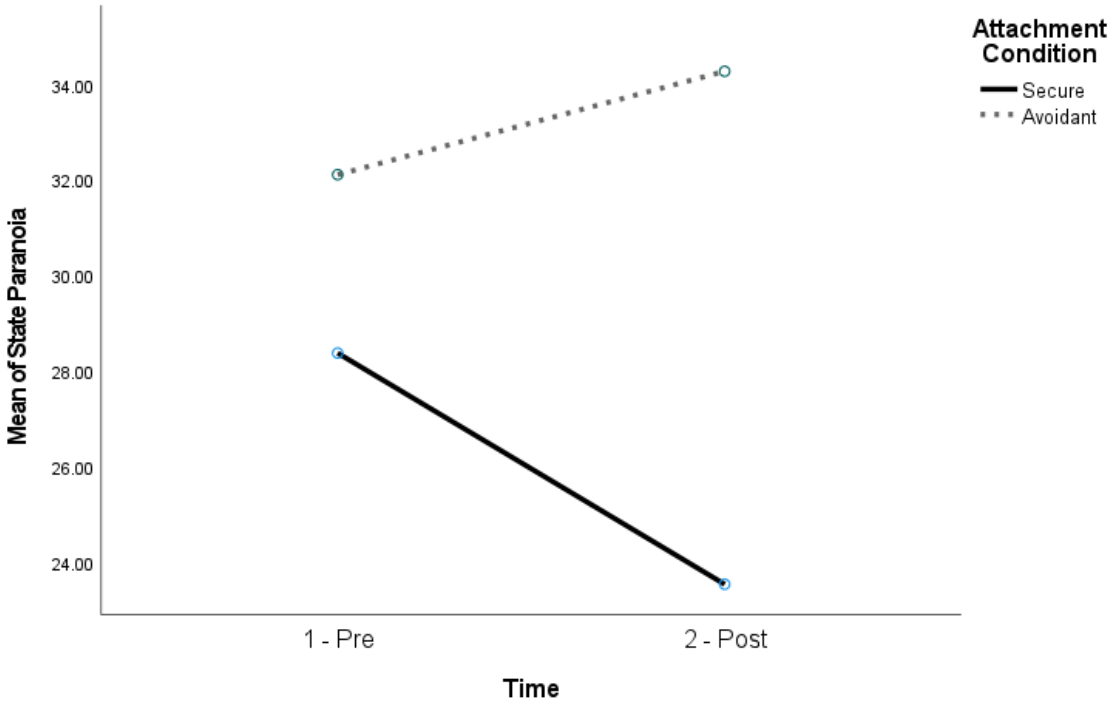


Figure 2. 2

Interaction between Time (Pre-Prime and Post-Prime) and Attachment Condition (Secure and Avoidant) for State Help-Seeking

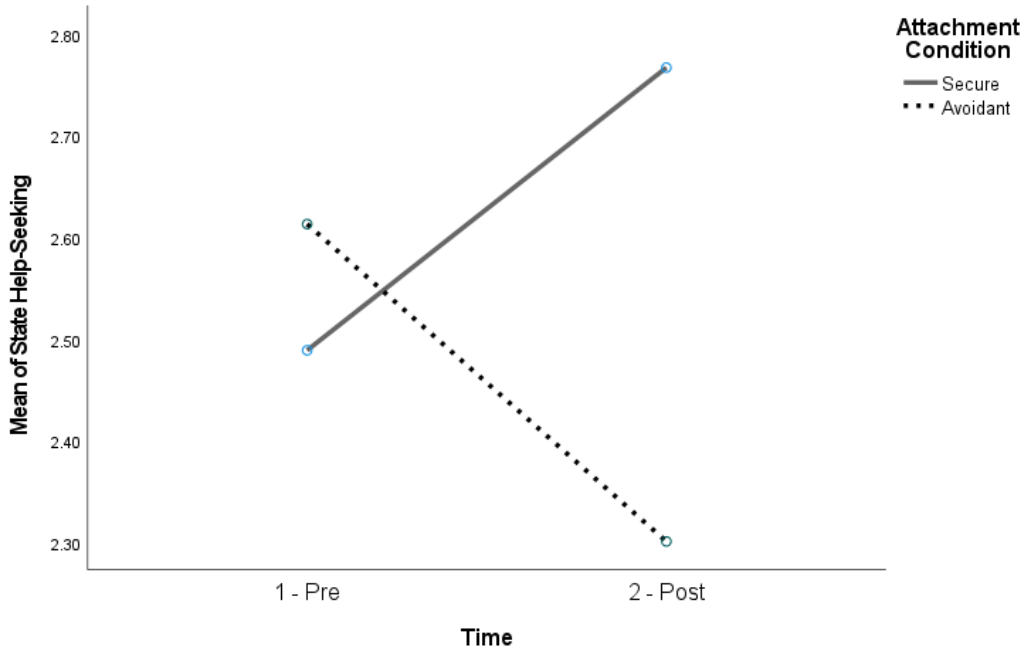
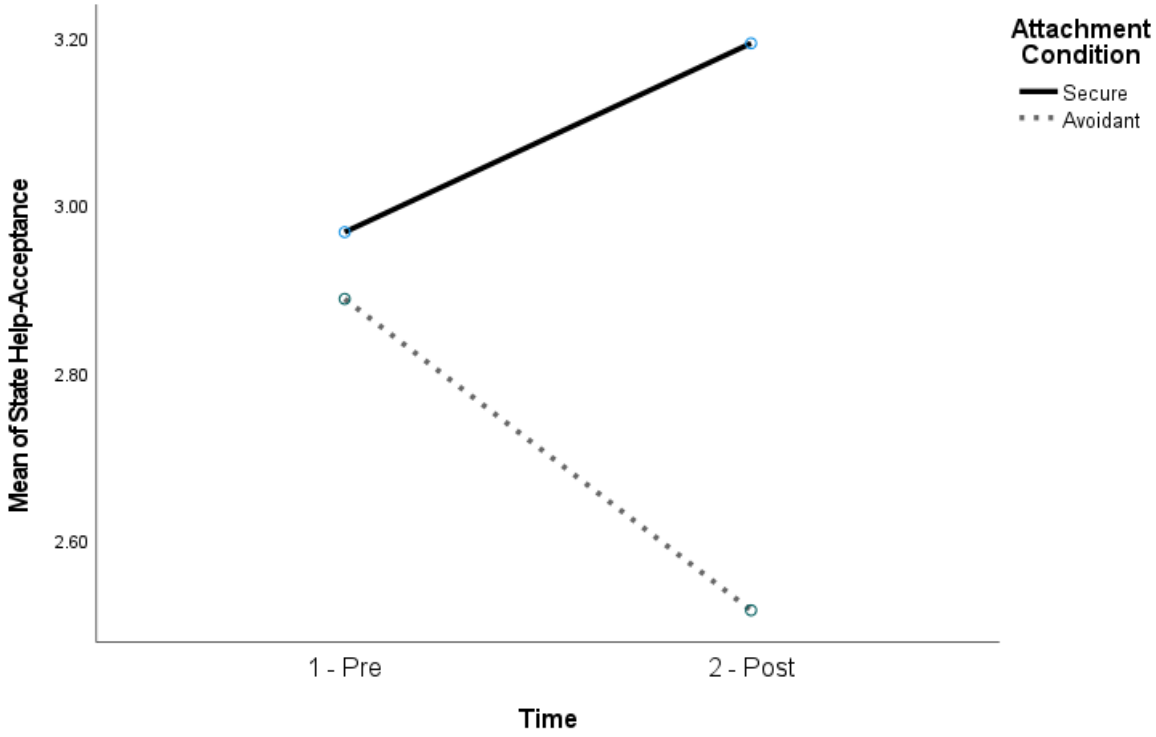


Figure 2. 3

Interaction between Time (Pre-Prime and Post-Prime) and Attachment Condition (Secure and Avoidant) for State Help-Acceptance



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List of Appendices

Appendix A

Submission guidelines

Both, the systematic review, and the empirical paper have been prepared to be published for

"Psychology and Psychotherapy: Theory, Research and Practice" (PAPTRAP)

Author guidelines (copied from:

https://bpspsychub.onlinelibrary.wiley.com/hub/journal/20448341/homepage/forauthors.html)

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All papers published in the *Psychology and Psychotherapy: Theory Research and Practice* are eligible for Panel A: Psychology, Psychiatry and Neuroscience in the Research Excellence Framework (REF).

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Psychology and Psychotherapy: Theory Research and Practice (formerly The British Journal of Medical Psychology) is an international scientific journal with a focus on the psychological and social processes that underlie the development and improvement of psychological problems and mental wellbeing, including:

• theoretical and research development in the understanding of cognitive and emotional factors in psychological problems;
• behaviour and relationships; vulnerability to, adjustment to, assessment of, and recovery (assisted or otherwise) from psychological distresses;
• psychological therapies, including digital therapies, with a focus on understanding the processes which affect outcomes where mental health is concerned.

The journal places particular emphasis on the importance of theoretical advancement and we request that authors frame their empirical analysis in a wider theoretical context and present the theoretical interpretations of empirical findings.

We welcome submissions from mental health professionals and researchers from all relevant professional backgrounds both within the UK and internationally.

In addition to more traditional, empirical, clinical research we welcome the submission of

- systematic reviews following replicable protocols and established methods of synthesis
- qualitative and other research which applies rigorous methods
- high quality analogue studies where the findings have direct relevance to clinical models or practice.

Clinical or case studies will not normally be considered except where they illustrate particularly unusual forms of psychopathology or innovative forms of therapy and meet scientific criteria through appropriate use of single case experimental designs.

All papers published in *Psychology and Psychotherapy: Theory, Research and Practice* are eligible for Panel A: Psychology, Psychiatry and Neuroscience in the Research Excellence Framework (REF).

3. MANUSCRIPT CATEGORIES AND REQUIREMENTS

- Articles should adhere to the stated word limit for the particular article type. The word limit excludes the abstract, reference list, tables and figures, but includes appendices.

Word limits for specific article types are as follows:

- Research articles: 5000 words
- Qualitative papers: 6000 words
- Review papers: 6000 words
- Special Issue papers: 5000 words

In exceptional cases the Editor retains discretion to publish papers beyond this length where the clear and concise expression of the scientific content requires greater length (e.g., explanation of a new theory or a substantially new method). Authors must contact the Editor prior to submission in such a case.

Please refer to the separate guidelines for Registered Reports.

All systematic reviews must be pre-registered and an anonymous link to the pre-registration must be provided in the main document, so that it is available to reviewers. Systematic reviews without pre-registration details will be returned to the authors at submission.

Brief-Report COVID-19

For a limited time, the *Psychology and Psychotherapy: Theory, Research and Practice* are accepting brief-reports on the topic of Novel Coronavirus (COVID-19) in line with the journal's main aims and scope (outlined above). Brief reports should not exceed 2000 words and should have no more than two tables or figures. Abstracts can be either structured (according to standard journal guidance) or unstructured but should not exceed 200 words. Any papers that are over the word limits will be returned to the authors. Appendices are included in the word limit; however online supporting information is not included.

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Revised Manuscript Submission

Contributions must be typed in double spacing. All sheets must be numbered.

Cover letters are not mandatory; however, they may be supplied at the author's discretion. They should be pasted into the 'Comments' box in Editorial Manager.

Parts of the Manuscript

The manuscript should be submitted in separate files: title page; main text file; figures/tables; supporting information.

Title Page

- A short informative title containing the major key words. The title should not contain abbreviations (see Wiley's best practice SEO tips);
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- The full names of the authors;
- The author's institutional affiliations where the work was conducted, with a footnote for the author's present address if different from where the work was conducted;
- Abstract;
- Keywords;
- Data availability statement (see Data Sharing and Data Accessibility Policy);
- Acknowledgments.

Author Contributions

For all articles, the journal mandates the CRediT (Contribution Roles Taxonomy)—more information is available on our Author Services site.

Abstract

Please provide an abstract of up to 250 words. Articles containing original scientific research should include the headings: Objectives, Design, Methods, Results, Conclusions. Review articles should use the headings: Purpose, Methods, Results, Conclusions.

Keywords

Please provide appropriate keywords.

Acknowledgments

Contributions from anyone who does not meet the criteria for authorship should be listed, with permission from the contributor, in an Acknowledgments section. Financial and material support should also be mentioned. Thanks to anonymous reviewers are not appropriate.

Practitioner Points

All articles must include Practitioner Points – these are 2-4 bullet point with the heading 'Practitioner Points'. They should briefly and clearly outline the relevance of your research to professional practice.

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As papers are double-anonymous peer reviewed, the main text file should not include any information that might identify the authors.

Manuscripts can be uploaded either as a single document (containing the main text, tables and figures), or with figures and tables provided as separate files. Should your manuscript reach revision stage, figures and tables must be provided as separate files. The main manuscript file can be submitted in Microsoft Word (.doc or .docx) or LaTex (.tex) format.

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- Acknowledgments;
- Abstract structured (intro/methods/results/conclusion);
- Up to seven keywords;
- Practitioner Points Authors will need to provide 2-4 bullet points, written with the practitioner in mind, that summarize the key messages of their paper to be published with their article;
- Main body: formatted as introduction, materials & methods, results, discussion, conclusion;
- References;
- Tables (each table complete with title and footnotes);
- Figure legends: Legends should be supplied as a complete list in the text. Figures should be uploaded as separate files (see below);
- Statement of Contribution.

Supporting information should be supplied as separate files. Tables and figures can be included at the end of the main document or attached as separate files but they must be mentioned in the text.

- As papers are double-anonymous peer reviewed, the main text file should not include any information that might identify the authors. Please do not mention the authors' names or affiliations and always refer to any previous work in the third person.
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Tables should be self-contained and complement, not duplicate, information contained in the text. They should be supplied as editable files, not pasted as images. Legends should be concise but comprehensive – the table, legend, and footnotes must be understandable without reference to the text. All abbreviations must be defined in footnotes. Footnote symbols: †, ‡, §, ¶, should be used (in that order) and *, **, *** should be reserved for P-values. Statistical measures such as SD or SEM should be identified in the headings.

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Although authors are encouraged to send the highest-quality figures possible, for peer-review purposes, a wide variety of formats, sizes, and resolutions are accepted.

Click here for the basic figure requirements for figures submitted with manuscripts for initial peer review, as well as the more detailed post-acceptance figure requirements.

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Supporting information is information that is not essential to the article, but provides greater depth and background. It is hosted online and appears without editing or typesetting. It may include tables, figures, videos, datasets, etc.

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For help with submissions, please contact: Hannah Wakley, Associate Managing Editor (papt@wiley.com) or phone +44 (0) 116 252 9504.

Appendix B

Ethical approval

The ethical approval was received from the University of Southampton Ethics Committee (ERGO no: 71766).

Appendix C

Participant Information Sheet and Consent Form

Combined Participant Information Sheet and Consent Form for Anonymous Online Surveys for Adult Participants

Study Title: Relationships and responses to unusual experiences.

Researcher(s): Laura Skrobinska

University email: ls2g17@soton.ac.uk

Ethics/ERGO no: 71766

Version and date: Version 3, 19/12/2022

What is the research about?

My name is Laura Skrobinska, and I am a Trainee Clinical Psychologist conducting this research as part of my doctorate degree at the University of Southampton in the United Kingdom.

I am inviting you to participate in a study regarding relationships and responses to unusual experiences.

This study was approved by the Faculty Research Ethics Committee (FREC) at the University of Southampton (Ethics/ERGO Number: 71766).

What will happen to me if I take part?

This study involves completing an anonymous questionnaire which should take approximately 15 minutes of your time in total. This study has two parts:

Part 1:

- Having provided your consent using the tick-box below, you will first be asked to complete a number of questionnaires about yourself and your relationships. Part one will take approximately 7 minutes to complete.

Part 2:

- Approximately 2-5 days after completing Part 1, you will be invited to complete part 2. This will involve completing further measures, imagery tasks, and final set of measures. Having completed the entire study, you will be debriefed and paid. Part 2 will take no longer than 7 minutes to complete.

If you are happy to complete this survey, you will need to tick (check) the box below to show your consent. As this survey is anonymous, the researcher will not be able to know whether you have participated, or what answers you provided.

Why have I been asked to participate?

You have been asked to take part you are a person aged 18 or above who previously reported unusual experiences/psychosis on a previous Prolific screen and confirmed that you will be willing to take part in future research.

I am aiming to recruit around 70 participants for this study.

What information will be collected?

The questions in this survey ask for information in relation to relationships and responses to unusual experiences. This study will collect electronic data which you will provide when completing the online questionnaires. Personal data (i.e., age, gender, ethnicity, nationality, Prolific ID) will be collected along with your answers to questions about your thoughts and feelings about relationships. No personal data such as your name, mobile phone or email addresses will be collected.

What are the possible benefits of taking part?

You will receive £3 upon completion of the whole study (Parts 1 and 2).

You will contribute to our understanding of relationships and responses to unusual experiences.

Are there any risks involved?

There are no major risks in this study; however, it is possible that you may experience transient discomfort. If you feel unable to continue your participation, you are free to withdraw at any time until completion of the study. Please note that you will receive payment only upon full completion of Part 2; as such, if you withdraw before or during Part 2, you will not be entitled to payment.

If you do feel psychological discomfort and/or distress at any point of this study, you can contact the following resources for support:

- Samaritans: http://www.samaritans.org/how-we-can-help-you/contact-us.
- NHS choices: http://www.nhs.uk/pages/home.aspx
- International mental health helplines https://www.helpguide.org/find-help.htm

Alternatively, I advise you to contact your GP for support.

What will happen to the information collected?

All information collected for this study will be stored securely on a password protected computer and backed up on a secure server. Your participation and the information we collect about you during the course of the research will be kept strictly confidential. In addition, all data will be pooled and only compiled into data summaries or summary reports. In line with the Open Science practice an anonymised data set may be made available to other researchers to check our results.

The information collected will be analysed and written up as part of the researcher's thesis. It will be published in a journal and presented at conferences.

The University of Southampton conducts research to the highest standards of ethics and research integrity. In accordance with our Research Data Management Policy, data will be held for 10 years after the study has finished when it will be securely destroyed.

What happens if there is a problem?

If you have a concern about any aspect of this study, you should speak to the researchers who will do their best to answer your questions.

Research team contact details:

- Laura Skrobinska ls2g17@soton.ac.uk
- Dr Katherine Newman-Taylor: knt@soton.ac.uk
- Dr Kathy Carnelley: k.carnelley@soton.ac.uk

If you are unhappy about any aspect of this study and would like to make a formal complaint, you can contact the Head of Research Integrity and Governance, University of Southampton, on the following

contact details: Email: rgoinfo@soton.ac.uk, phone: + 44 2380 595058.

Please quote the Ethics/ERGO number above. Please note that by making a complaint you might be no longer anonymous.

More information on your rights as a study participant is available via this link:
https://www.southampton.ac.uk/about/governance/participant-information.page

Thank you for reading this information sheet and considering taking part in this research.

☐ I have read and understood information on this form, are aged 18 or over and agree to take part in this survey.

Appendix D

Prolific Messages to Participants

Document: Version 1, 04/03/2022

ERGO ID: 71766

Message no 1 on Prolific:

Study: Relationships and responses to unusual experiences.

Dear Participant,

I would like to invite you to complete a study about Relationships and Responses to Unusual Experiences.

You may recall that some time ago, you completed a questionnaire where you stated that you had unusual experiences/psychosis and would be willing to take part in future research. This study consists of two parts (with a 2–5-day break between each part). You will be paid £3 after fully completing both parts of the study.

If you are interested to take part in this study, please click the below link to find out more information about the study.

https://southampton.qualtrics.com/jfe/form/SV_eLF3x54KJogyLhs

If you have any questions, feel free to message me.

Best wishes,

Laura Skrobinska

Message no 2 on Prolific:

Study: Relationships and responses to unusual experiences.

Dear Participant,

Please click the link to access the second stage of the study.

https://southampton.qualtrics.com/jfe/form/SV_etTRIH6t6F2KHJ4

Thank you for your participation in this study.

Best wishes,

Laura Skrobinska

Appendix E

Debriefing Statement

UNIVERSITY OF Southampton

Relationships and responses to unusual experiences.

Debriefing Statement: Version 1, 04/03/2022

ERGO ID: 71766

The aim of this research was to explore whether secure adult attachment facilitates help-seeking and acceptance in people with unusual experiences/psychosis. It is expected that the findings will inform future clinical practice in adapting treatments to facilitate recovery of people with psychosis and attachment difficulties.

Your data will help our understanding of how priming secure and avoidant attachment affects paranoia, help seeking and help acceptance intentions. Once again results of this study will not include your name or any other identifying characteristics. The research did not use deception. You may also request a summary of the findings when the study is completed and written up.

If you have any further questions, please contact me, Laura Skrobinska, at ls2g17@soton.ac.uk, or my research team members Dr Katherine Newman-Taylor: knt@soton.ac.uk and Dr Kathy Carnelley: k.carnelley@soton.ac.uk.

If you have questions about your rights as a participant in this research, or if you feel that you have been placed at risk, you may contact the University of Southampton Head of Research Integrity and Governance (023 8059 5058, rgoinfo@soton.ac.uk).

If you feel that this study has affected you and you feel worried or anxious, please contact your GP or the following organizations:

- Samaritans: (mobile: 023 8063 2888, email: jo@samaritans.org)
- NHS choices: (http://www.nhs.uk/pages/home.aspx)
- International mental health helplines (https://www.helpguide.org/find-help.htm)

Thank you for your participation in this research.

Appendix F

Attachment Imagery Scripts

Secure Attachment-Based Imagery Script by Sood et al. (2021)

Thank you for taking part in this study. Please only proceed if you are able to spend the next few minutes alone, in a quiet place, focusing on this task. I will be asking you to remember a time when you were with another person and imagine this memory as clearly as possible.

Take a few moments to sit comfortably in the chair. Notice how your body feels right now … the floor solid beneath your feet … the pressure of the chair supporting you. Close your eyes if you are happy to do this or allow your gaze to drop to a point in front of you if this feels more comfortable.

I'd like you to think of a time when you were with another person, perhaps a family member or a friend. Think of a time when you felt close to the other person. You felt confident in their affection for you and knew that they wanted to stay with you. In this relationship you felt safe and secure with the other person.

As best you can, focus on this memory, on how safe and secure you felt, and how you trusted the other person with you.

When we feel safe and secure with other people, and confident we can trust them, we often feel good about ourselves and may have an image or a sense of ourselves in mind. As best you can, picture yourself in this situation. Picture the image of yourself as clearly as possible in your mind's eye.

Notice what you're doing.

Notice who you're with.

Notice what you can see and hear.

As best you can, continue to picture this memory as clearly as possible – and the image of yourself, safe and secure.

Notice how clear and vivid this image is.

Focusing on this image, notice any sensations in your body.

Focusing on this image, notice any feelings that arise.

Focusing on this image, notice the sense of being safe and secure with the other person who you can trust.

As we come to the end of this exercise, as best you can, continue to hold this memory in mind – and the sense of yourself, safe and secure.

Insecure-Avoidant Attachment-Based Imagery Script by Sood et al. (2021)

Thank you for taking part in this study. Please only proceed if you are able to spend the next few minutes alone, in a quiet place, focusing on this task. I will be asking you to remember a time when you were with another person and imagine this memory as clearly as possible.

Take a few moments to sit comfortably in the chair. Notice how your body feels right now … the floor solid beneath your feet … the pressure of the chair supporting you. Close your eyes if you are happy to do this or allow your gaze to drop to a point in front of you if this feels more comfortable.

I'd like you to think of a time when you were with another person, perhaps a family member or a friend. Think of a time when you felt uncomfortable being too close to the other person, and found it hard to trust them completely, and allow yourself to depend on them. In this relationship, you felt yourself getting nervous when the other person tried to get too close to you, and uncomfortable that they wanted to be more familiar than you would have liked.

As best you can, focus on this memory, on how you felt nervous and uncomfortable when the other person tried to get too close to you, and how hard it was to trust and depend on them.

When we feel like we cannot trust or depend on others or feel nervous when they try to get close to us, we may have an image or a sense of ourselves in mind. As best you can, picture yourself in this situation. Picture the image of yourself as clearly as possible in your mind's eye.

Notice what you're doing.

Notice who you're with.

Notice what you can see and hear.

As best you can, continue to picture this memory as clearly as possible – and the image of yourself, nervous and uncomfortable when the other person tried to get too close to you, and how hard it was to trust and depend on them.

Notice how clear and vivid this image is.

Focusing on this image, notice any sensations in your body.

Focusing on this image, notice any feelings that arise.

Focusing on this image, notice the sense of being nervous and uncomfortable when the other person tried to get too close to you, and how hard it was to trust and depend on them.

As we come to the end of this exercise, as best you can, continue to hold this memory in mind – and the sense of yourself feeling nervous and uncomfortable.

Appendix G

Measures

SURVEY DAY 1

TRAIT MEASURES

Demographics Questionnaire

1. **Please select your gender**
   Male/Female/Non-binary/Prefer not to answer

2. **Please enter your age**

   _____

3. **How would you describe your nationality?**

   _____

4. **How would you describe your ethnicity?**

   _____

The Revised Green et al. Paranoid Thoughts Scale (R-GPTS; Freeman et al., 2019)

PART A

Please read each of the statements carefully. They refer to thoughts and feelings you may have had about others over the last month. Think about the last month and indicate the extent of these feelings from 0 (Not at all) to 4 (Totally). (Please do not rate items according to any experiences you may have had under the influence of drugs.)

		Not at all				Totally
1.	I spent time thinking about friends gossiping about me.	0	1	2	3	4
2.	I often heard people referring to me.	0	1	2	3	4
3.	I have been upset by friends and colleagues judging me critically.	0	1	2	3	4
4.	People definitely laughed at me behind my back.	0	1	2	3	4
5.	I have been thinking a lot about people avoiding me.	0	1	2	3	4
6.	People have been dropping hints for me.	0	1	2	3	4
7.	I believed that certain people were not what they seemed.	0	1	2	3	4
8.	People talking about me behind my back upset me.	0	1	2	3	4

PART B

Please read each of the statements carefully. They refer to thoughts and feelings you may have had about others over the last month. Think about the last month and indicate the extent of these feelings from 0 (Not at all) to 4 (Totally). (Please do not rate items according to any experiences you may have had under the influence of drugs.)

		Not at all				Totally
1.	Certain individuals have had it in for me.	0	1	2	3	4
2.	People wanted me to feel threatened, so they stared at me.	0	1	2	3	4
3.	I was certain people did things in order to annoy me.	0	1	2	3	4
4.	I was convinced there was a conspiracy against me.	0	1	2	3	4
5.	I was sure someone wanted to hurt me.	0	1	2	3	4
6.	I couldn't stop thinking about people wanting to confuse me.	0	1	2	3	4
7.	I was distressed by being persecuted.	0	1	2	3	4
8.	It was difficult to stop thinking about people wanting to make me feel bad.	0	1	2	3	4
9.	People have been hostile towards me on purpose.	0	1	2	3	4
10.	I was angry that someone wanted to hurt me.	0	1	2	3	4

Psychosis Attachment Measure- Revised* (*PAM-R; Pollard et al., 2020)

We all differ in how we relate to other people. This questionnaire lists different thoughts, feelings and ways of behaving in relationships with others.

Thinking generally about how you relate to other key people in your life, **please use a tick to show how much each statement is like you**. Key people could include family members, friends, partner or mental health workers. There are no right or wrong answers.

	Not at all	**A little**	**Quite a bit**	**Very much**
1. I prefer not to let other people know my 'true' thoughts and feelings.				
2. I find close relationships overwhelming				
3. I find it easy to depend on other people for support with problems or difficult situations.				
4. I feel frightened in close relationships				
5. I tend to get upset, anxious or angry if other people are not there when I need them.				
6. I usually discuss my problems and concerns with other people.				
7. When I'm stressed, I want to contact close others but I am frightened of their response				
8. I worry that key people in my life won't be around in the future.				
9. I find people I am in close relationships with to be unpredictable in their actions and behaviours				
10. I ask other people to reassure me that they care about me.				
11. I often get hurt in close relationships				
12. If other people disapprove of something I do, I get very upset.				

13. I find it difficult to accept help from other people when I have problems or difficulties.				
	Not at all	**A little**	**Quite a bit**	**Very much**
14. When I try to get close to someone sometimes, I shut down and find it difficult to think or move				
15. It helps to turn to other people when I'm stressed.				
16. I worry that if other people get to know me better, they won't like me.				
17. Sometimes I am confused by my feelings towards others				
18. I worry a lot about my relationships with other people.				
19. I want close relationships, but being close makes me feel frightened				
20. I often freeze when I try to get close to someone				
21. I try to cope with stressful situations on my own.				
22. I worry that if I displease other people, they won't want to know me anymore.				
23. I want to be close to others but I often find myself pulling away when I am				
24. I worry about having to cope with problems and difficult situations on my own.				
25. I feel uncomfortable when other people want to get to know me better.				
26. When I form close relationships, I lose sense of who I am				

Experiences in Close Relationships Inventory (ECR; adapted by Lafontaine et al., 2016)

The following statements concern how you generally feel in close relationships (e.g., with romantic partners, close friends, or family members). Respond to each statement by indicating how much you agree or disagree with it. Select your response using the rating scale

	1 = Disagree strongly	2 = Disagree	3 = Disagree slightly	4 = Neutral/ mixed	5 = Agree slightly	6 = Agree	7 = Agree strongly
I feel comfortable depending on others.	○	○	○	○	○	○	○
I worry that others won't care about me as much as I care about them.	○	○	○	○	○	○	○
I usually discuss my problems and concerns with close others.	○	○	○	○	○	○	○
I worry a fair amount about losing my close relationship partners.	○	○	○	○	○	○	○
I tell my close relationship partners just about everything.	○	○	○	○	○	○	○
I worry a lot about my relationships.	○	○	○	○	○	○	○
I don't mind asking close others for comfort, advice, or help.	○	○	○	○	○	○	○
I worry about being alone.	○	○	○	○	○	○	○
I don't feel comfortable opening up to others.	○	○	○	○	○	○	○
I need a lot of reassurance that close relationship partners really care about me.	○	○	○	○	○	○	○
I feel comfortable sharing my private thoughts and feelings with others.	○	○	○	○	○	○	○
If I can't get a relationship partner to show interest in me, I get upset or angry.	○	○	○	○	○	○	○

Trait Auditory and Visual Hallucinations[8] (developed by Sood, Carnelley, & Newman-Taylor, in prep)

Please rate the extent to which you experience the following:

1. I hear one or more voices in my head – speaking my thoughts aloud, talking to each other, or saying other things.
2. I hear things that other people cannot hear.
3. I see things, such as shadows or shapes, when nothing is there.
4. I can see things that other people cannot see.

Never						Almost always
1	2	3	4	5	6	7

[8] Some items adapted from Morrison et al.'s (2000) Revised Hallucinations Scale and Schlier et al.'s (2017) Continuum of Auditory Hallucinations - State Assessment.

Help Seeking Measure (HSM-T; Sood et al., 2020, adapted for trait)

Please consider how you usually act when upset. We are all different and there are no right or wrong answers. Simply keep in mind how you usually act when distressed.

When you are feeling upset, how likely are you to:

	1 Not at all	2 Unlikely	3 Possibly	4 Probably	5 Extremely
1. make contact with someone					
2. talk to somebody					
3. ask for help					

Help Acceptance Measure – Trait (HAM-T)

Please consider how you usually act when upset. We are all different and there are no right or wrong answers. Simply keep in mind how you usually act when distressed.

When you are feeling upset, how likely are you to:

	1 Not at all	2 Unlikely	3 Possibly	4 Probably	5 Extremely
1. accept emotional support					
2. accept practical help					
3. accept advice about current problems					
4. accept help to make decisions					

SURVEY DAY 2

STATE MEASURES

State Adapted Paranoia Checklist, Brief version. – (Schlier et al., 2016)

The following questionnaire deals with thoughts and feelings that one may experience in certain situations. For each of the feelings and thoughts described below, please indicate how much they apply to you at the moment. Feel free to answer based on what first came to your mind. There are no right or wrong answers.

	0 = Not at all										10 = very much
1. I need to be on my guard against others.	0	1	2	3	4	5	6	7	8	9	10
2. People are trying to make me upset.	0	1	2	3	4	5	6	7	8	9	10
3. Strangers and friends look at me critically.	0	1	2	3	4	5	6	7	8	9	10
4. People are laughing at me.	0	1	2	3	4	5	6	7	8	9	10
5. My actions and thoughts might be controlled by others.	0	1	2	3	4	5	6	7	8	9	10

Help Seeking Scale – Measure of state help-seeking (HSM-S; Sood et al., 2021)

If you were feeling upset right now, how likely would you be to:

	1 Not at all	2 Unlikely	3 Possibly	4 Probably	5 Extremely
1. make contact with someone					
2. talk to somebody					
3. ask for help					

Help Acceptance Measure – State (HAM-S)

If you were feeling upset right now, how likely would you be to:

	1 Not at all	2 Unlikely	3 Possibly	4 Probably	5 Extremely
1. accept emotional support					
2. accept practical help					
3. accept advice about current problems					
4. accept help to make decisions					

MANIPULATION CHECKS

Imagery Manipulation Check: Felt Security – (Luke et al., 2012)

Please respond to the items below using the following 6-point rating scale.

1	2	3	4	5	6
not at all					very much

Thinking about the person I described in the visualization task makes me feel…

_____ comforted

_____secure

_____supported

_____ safe

_____ loved

_____ protected

Imagery Manipulation Check – (Sood et al., 2021)

Please give the percentage of time that the image was held in mind from 0% (none of the time) to 100% (all of the time).

Please rank the vividness of the image between 0 (not at all vivid) and 10 (extremely vivid).

1	2	3	4	5	6	7	8	9	10
Not at all									Very much