THERAPY PREFERENCE

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Section B:

Exploring clusters of psychotherapy credibility within the general population

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Summary of the Major Research Project

Section A

A review of the literature consisting of a systematic search and narrative review to determine i) whether adults in the general population have psychotherapy preferences, and ii) whether there are specific individual characteristics that predict preference for psychotherapies within the general population. There was significant variation in design of studies, with the majority being analogue surveys. A mixed picture emerged with the majority of studies comparing CBT to other therapies. Similarly, a variety of individual characteristic predicted preference in certain studies. The review found that within the general population people do have preferences for different psychotherapies.

Section B

A quantitative survey-based study investigating whether there are clusters of psychotherapy preferences within the general population. Findings showed three distinct credibility clusters. In cluster one people found all psychotherapies of relatively low credibility, the second cluster found all psychotherapies of relatively high credibility. The final cluster found Mindfulness-based Cognitive Therapy more credible compared to Psychodynamic psychotherapy and Cognitive Behavioural Psychotherapy. Certain dispositional characteristics including general wellbeing predicted cluster membership. This study adds to a paucity of research exploring credibility of differing psychotherapies in the general population.

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Section A

Alexandra Liv Juel Nielsen BSc Hons MSc

Psychotherapy preference within the general population

7117 (+ 250 words)

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Abstract

Client preferences have been identified as a critical component of psychology's evidence-based practice. Previous reviews have demonstrated that incorporating patient preference and choice into mental health treatment may result in improved adherence and outcome (Lindhiem et al., 2014; Swift & Callahan, 2009; Swift et al., 2011, 2013, 2018; Windle et al., 2020). However, to the best our knowledge there is no systemic review investigating psychotherapy preferences within the general population. The purpose of this review was to use systematic search, and narrative review to determine i) whether adults in the general population have psychotherapy preferences, and ii) whether there are specific individual characteristics that predict preference for psychotherapies within the general population. A systematic search of five electronic databases and relevant reference lists identified 13 papers. There was significant variation in design of studies, with the majority being analogue surveys. A mixed picture emerged with the majority of studies comparing CBT to other therapies. About half of the studies reported a preference for CBT over psychodynamic psychotherapy or other therapies. Similarly, a variety of individual characteristic predicted preference in certain studies. This review found that within the general population people do have preferences for different psychotherapies.

Keywords: preference, psychotherapy, dispositional characteristics, general population

Introduction

Preferences

Client preferences have been identified as a critical component of psychology's evidence-based practice. Evidence-based practice in psychology (EBPP) has been defined in recent years as the integration of the best available research with clinical expertise, as well as client characteristics, culture, and preferences (American Psychological Association (APA), 2006). Client preferences refer to the variables that clients' value, desire, or demonstrate an interest in during the therapy encounter (Swift & Callahan, 2010). Although client preferences frequently vary, the literature identifies three distinct types of client preferences (Swift et al., 2018). The term "therapist preferences" refers to patients' wishes for psychotherapists to have particular individual characteristics, such as gender, ethnic origin, or religion. "Treatment preferences" refer to an individual's preference for a specific type of therapy, such as cognitive–behavioural therapy (CBT) or a person-centred approach. Finally, "activity preferences" refer to behaviours, methods, and styles of intervention used in therapeutic work, such as group therapy versus individual therapy or the use of homework (Cooper & McLeod, 2011; Watsford & Rickwood, 2014). Clients who receive the type of therapy that fits with their preferences have significantly better treatment outcomes and satisfaction and lower dropout rates compared to clients who do not (Lindhiem et al., 2014; Swift et al., 2018).

Most of the research on preferences has been conducted at the treatment level. This indicates that participants, in general, prefer more active and structured forms of psychotherapy to those based on insight. For example, King and colleagues (2000) discovered that approximately 60% of patients who wanted to choose their treatment preferred CBT, while 40% preferred nondirective counselling. Another study (Bragesjö et al., 2004) asked a random sample of 500 Swedish adults to select one of three therapies—CBT,

cognitive therapy, or psychodynamic therapy—if they required psychological assistance. Again, CBT was the most popular treatment, with approximately 35% opting for it, followed by 27% for cognitive psychotherapy and 16% for psychodynamic therapy. By contrast, Cole and colleagues (2018) discovered a statistically significant preference for other therapies, including Positive Psychology Positive Masculinity therapy (PPPMT), Psychodynamic therapy (PDT) and Person-centred therapy (PCT) over CBT in a sample of 315 American men. However, Cole and colleagues (2018) study only included men. They used a vignette for PPPMT developed by the creator of PPPMT without providing validity and reliability of the vignette, which could go some way explaining the difference.

Psychological models of preference

Researchers have noted the limited theory around the factors moderating treatment preference (Arnkoff et al., 2002). Some research into preferences have been influenced by theory and research on the Aptitude-Treatment Interaction (ATI) paradigm (Dance & Neufeld, 1988; Snow, 1991), which originated in the field of education. The fundamental premise of ATI research in the field of psychotherapy is that patients with certain characteristics will benefit from one treatment over another, while patients without these characteristics or with other contrasting characteristics will benefit from another type of therapy. Despite its methodological appeals it has been sparsely used in psychology research in the past decades (Caspi & Bell, 2004). Additionally, research on public attitudes towards the treatment of mental health difficulties has suggested Ajzen's theory of planned behaviour which may provide a theoretical framework for examining how attitudes and beliefs operate during the help-seeking process (Ajzen, 1991). According to the theory, behaviour is a function of salient beliefs that are relevant to the behaviour at hand. The antecedents of attitudes, subjective norms and perceived behavioural control are salient beliefs. These are

conceptually distinct predictors of intention, which may manifest as concrete action. Subjective norms are made up of normative expectations and the motivation to live up to them. Patients' normative expectations are shaped by the ideas that are currently common in society. According to this assumption, lay public attitudes should play a significant role in the patient's decision-making process when they are experiencing mental distress.

Predictors of psychotherapy preferences

Within the preference, literature researchers have tried to evaluate what predicts psychotherapy preference, mostly focusing on extrinsic client variables and, more recently, intrinsic client variables.

Extrinsic variables

Although extensive research has examined preferences in counselling, the bulk of this looked at preferences linked to the extrinsic variables such as age, ethnicity, education level, gender and a variety of other variables (Adamson et al., 2005; Baird, 1979; Berg et al., 2008; Cabral & Smith, 2011; Pretronzi & Masciale, 2015; Proctor & Rosen, 1981; Swift & Callahan, 2010; Atkinson et al., 1989; Cabral & Smith, 2011; Greenberg & Goldman, 2009; Mohlman, 2012; Givens et al., 2007; Riedel-Heller et al., 2005). Some of the research found no statistically significant difference in preference depending on extrinsic client variable (Adamson et al., 2005; Elkin et al., 1999), whereas others such as Mohlman (2012) found that among elderly individuals, ethnicity, age and sex did not affect treatment preference. Still, higher education attainment predicted a preference for psychotherapy. In a cross-sectional survey of treatment preference for depression, Churchill and colleagues (2000) found that gender and prior treatment experience influenced treatment preference. From a sociological

viewpoint, perceived similarities with others are thought to minimise a client's fear that they will be stereotyped and increase the likelihood that they will feel comfortable being transparent with their therapist.

However, as Cabral and Smith (2011) have pointed out, clients can be dissatisfied if they only fit a therapist based on extrinsic factors, such as ethnicity, if they have different values. While numerous studies have established that therapy preferences are related to specific demographic characteristics, little research has been conducted to determine whether accommodating preferences are equally important for all types of clients. Several studies have found that certain groups, in particular people identifying as minority ethnic or male, avoid seeking treatment if they experience mental health difficulties. Some evidence suggests that the avoidance is in part explained by fear of their preferences not being respected (González et al., 2010; Smith et al., 2011; Sue & Zane, 2009; Zane et al., 2004).

Intrinsic variables

While perceived similarities can increase perceptions of therapeutic effectiveness, few studies have explored preferences as they relate to intrinsic or dispositional characteristics such as personality traits (Arthur, 2001; Cabral & Smith, 2011; Holler, 2007; Pretronzi & Masciale, 2015). Previous research demonstrates that the personality trait openness predicts psychodynamic preference, and that the personality trait agreeableness is associated with cognitive-behavioural orientation preference (Pretronzi & Masciale, 2015). The presence of replicated effects across studies employing comparable measures indicates that the relationship between a person's dispositional characteristics and theoretical preferences merits further investigation (Holler, 2007; Ogunfowora & Drapeau, 2008; Scandell et al., 1997).

Although Arthur (2001) and others have shown in a sample of therapists the dispositional correlates of psychotherapy preferences, fewer studies have tested this line of research using the general population of clients (or potential clients). Significant correlations between the personality characteristics of psychology students and their preferences for three different psychotherapeutic orientations were identified in a study by Ogunfowora and Drapeu (2008). In addition, personality traits were also found to be predictive of preferences for psychotherapeutic orientation in a study by Holler (2007). Holler's (2007) analysis used a group of students from two separate universities; however, the sample differed from others in that psychology was not researched directly by the students. To date, no research has examined the preference characteristics that distinguish clinical from non-clinical populations.

Previous reviews of psychotherapy preferences

Seven meta-analyses have previously been conducted on psychotherapy preference (Rosen, 1967; Glass et al., 2001; Lindhiem et al., 2014; Swift & Callahan, 2009; Swift et al., 2011, 2013, 2018; Windle et al., 2020). A meta-analysis by Swift and Callahan (2009) investigated the effect of patient treatment preference on outcomes for various disorders and problems (e.g., depression, anxiety, substance abuse, severe mental illness, chronic pain, or others). Participants who received their preferred treatment were half as likely as those who did not receive their preferred treatment to drop out. Additionally, participants receiving their preferred treatment had a nearly 60% chance of improvement than participants who did not. Swift and colleagues (2011) included 35 studies that examined the preference effect and found that clients who were matched to their preferred therapy conditions were less likely to discontinue therapy prematurely and demonstrated more significant treatment outcome improvement. Although preference type (role, therapist, or treatment type) did not appear to

moderate the preference effect, the study design was found to be a significant moderator, with randomised controlled trials demonstrating the most significant differences between preference-matched and nonmatched clients.

Lindhiem and colleagues (2014) conducted a meta-analysis including 34 studies on the effect of client preferences on treatment satisfaction, adherence, and clinical outcome for either mental health difficulties or medical diagnosis. Clients who participated in shared decision making selected a treatment condition or received their preferred treatment demonstrated increased treatment satisfaction, increased completion rates, and superior clinical outcomes. In a further meta-analysis by Swift and colleagues (2018), they reported a d = 0.28 in favour of clients matched to their preferences in a meta-analysis of 51 studies (16,000 + patients) comparing the outcomes of clients matched versus nonmatched to their preferred psychotherapy. Patients who received their psychotherapy preferences were nearly half as likely to discontinue treatment early. Windle and colleagues (2020) conducted a meta-analysis that included 29 randomised controlled trials for adult patients and discovered that patients who received a preferred mental health treatment had a moderately positive association with dropout rates and therapeutic alliance. There was no evidence of a significant correlation with other outcomes. Only one meta-analysis by Swift and colleagues (2013) analysed demographic variables in relation to preference. Swift and colleagues (2013) carried out a post hoc meta-regression analysis from a previous meta-analysis (Swift et al., 2011). They discovered that clients who receive a preferred condition, regardless of their demographics or treatment duration, have better treatment outcomes than clients who receive a nonpreferred condition. However, it may be more important for brief treatments as the length of treatment was the only predictor variable that accounted for 50% of the variance between the study effect sizes. Since most studies included in Swift and colleagues (2011) meta-analysis did not report this type of demographic data separately for preference-matched

and unmatched groups, Swift and colleagues (2013) were unable to make these comparisons using standard moderator analyses.

In summary, all previous reviews have demonstrated that incorporating patient preference and choice into mental health treatment may result in improved adherence and outcome. However, all previous meta-analyses (Windle et al., 2020; Swift et al., 2013) investigating treatment preference focused on patients with a mental health diagnosis, excluding studies focusing on general population samples. The literature has demonstrated that not everyone who felt the need for psychological support experienced depressive or anxiety symptoms (Alleaume et al., 2021). Therefore, a general population sample is important to consider as one in six will experience mental health difficulties at some point in their lives (McManus et al., 2016).

On the other hand, clinical researchers and practitioners may be curious about whether it is beneficial to accommodate client preferences in all situations and with all types of clients. The findings regarding the role of treatment length and client demographic variables as moderators of the preference effect may assist clinical researchers and practitioners in better understanding the situations in which accommodating client preferences is most valuable. Although, arguably, client preferences should be considered in all situations as part of the ethical principle of respect for people's right to self-determination and autonomy (APA, 2006). It may be that this review has the potential to identify situations in which practitioners should pay special attention to preferences. Therefore, there is a need for a more focused review, both in terms of the specific population and certain dispositional characteristics, which none of the previous reviews included.

Method

Aims

This review aimed to answer the following questions

1. Do adults in the general population, defined as any person aged 18 and over, have psychotherapy preferences?
2. Are there specific individual characteristics that predict preference for psychotherapies within the general population?

Methodology

A narrative review based on a systematic search was conducted to synthesise findings regarding psychotherapy preferences in the general population.

Eligibility criteria

1) Studies investigating preferences for psychotherapy that include a measure of treatment or treatment activity preference as an outcome for non-specific mental health difficulties. This decision was made as previous meta-analyses excluded general population samples, as mental health diagnosis and symptom severity could influence preference.
2) The study sample included an adult general population sample aged 18 and older without a mental health diagnosis.
3) Papers written or translated to English and published in peer-review journals.
4) Adults including anyone 18 years and over.

Papers were excluded if they included preferences for treatment related to a specific diagnosis, in-patient, or residential settings, were not primary research studies (i.e., commentaries, responses to other articles), or were unpublished research (incl master's or

doctoral thesis). In addition, search engine limits were set to ensure retrieved articles were written in English and were published in peer-reviewed journals. Furthermore, reference lists of relevant articles were searched to ensure that expected studies were included within the search terms results. This was a necessary step as researchers have found that reviews involving observational studies require more extensive literature searches to identify all necessary studies (Lemeshow et al., 2005).

Literature search

Two systematic searches of the literature were carried out in September 2019 and December 2020 to reduce inadvertent omissions. The searchers were performed to identify relevant papers from any date up to December 2020 using the following databases: PsychINFO, Science Direct, Cochrane Library, Medline, and Web of Science. The following search terms were combined: (community sample OR general population OR primary-care setting) AND (personality traits OR personality characteristics OR dispositional traits OR personality factors) AND (client OR patient OR participant OR community member) AND (choice OR options OR preference OR decision) AND (psychotherapy OR therapy OR psychology OR counselling OR psychosocial intervention).

Thirteen papers were included in this review after the screening procedure for suitability.

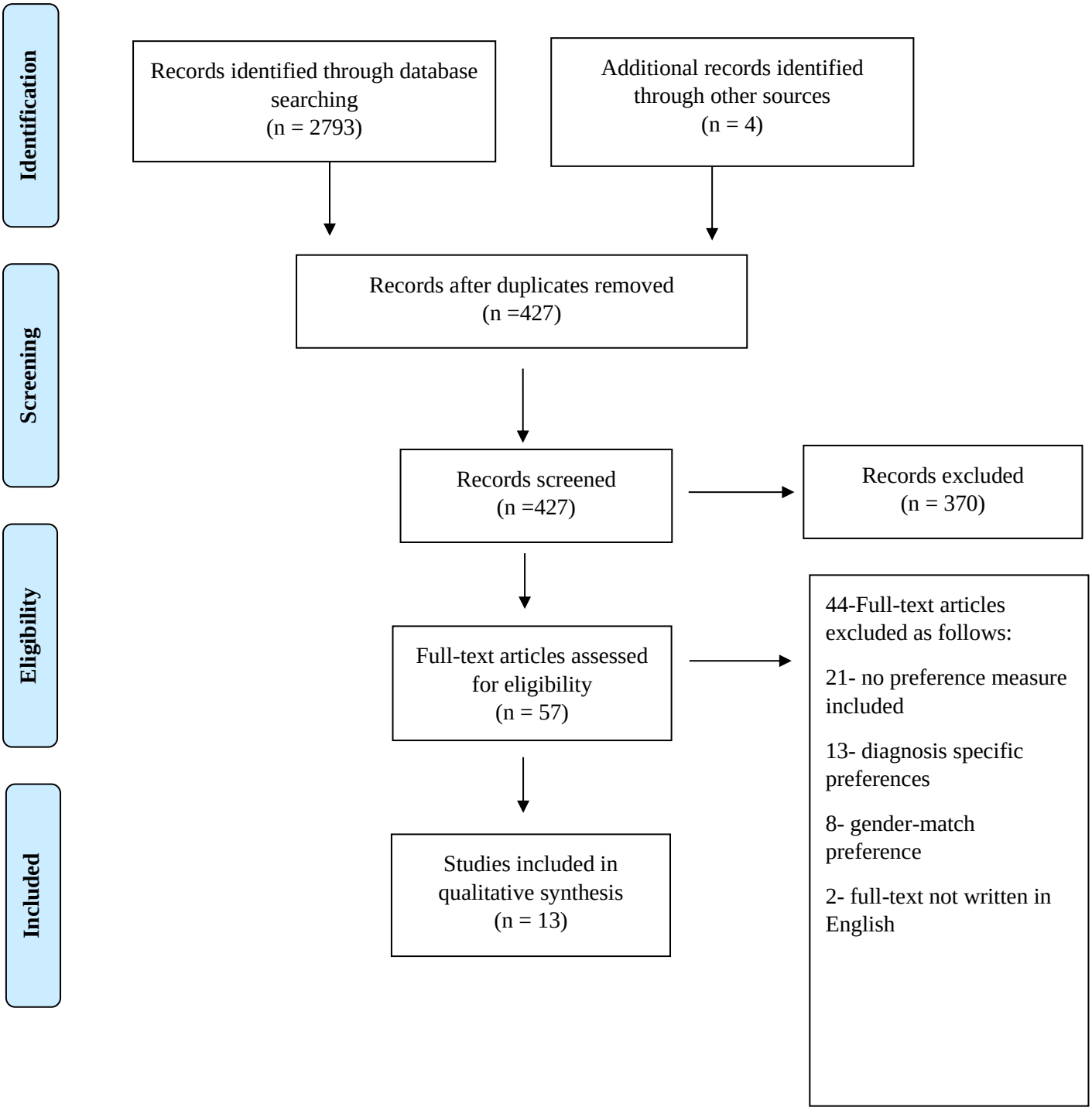

Figure 1

Flow chart illustrating the search and screening process.

Data extraction and analysis

The quality of the 13 included papers was analysed through the creation of a 'data extraction' form (in Appendix A), based on a checklist for data extraction in the Cochrane Handbook for Systematic Reviews of Interventions (Cochrane Collaboration, 2011). This took into account the following areas: source, methods, participants, interventions, outcomes, results, and miscellaneous. Included papers and data extracted from them can be found in Table 1. Of the thirteen papers that met the inclusion criteria for the review, two were quantitative studies (quasi-experimental), one cross-sectional observational studies and ten were observational studies.

According to the Cochrane Handbook for Systematic Reviews of Interventions (Cochrane Collaboration, 2011), all included studies were critiqued using published criteria rather than scales: the Critical Appraisal Skills Programme (CASP) (2017) checklists for the observational studies, the NICE (2012) quality appraisal checklist for the two quantitative quasi-experimental studies, and Joanna Biggs checklist (Munn & Aromataris, 2020) for the cross-sectional study.

Table 1.
Key information listed by study

Study	Type of study	N (#)	% Female	Age	Ethnicity	Design	Outcome measure	Findings
1. Pretronzi & Masciale (2015) USA	Observational online survey	202	67.3%	20 to 75 (M = 37.19, SD = 12.63)	78.2% Caucasian, 11.4% African American, 4.0% Pacific Islander, 3.0% Latino/a, 2.5% Multiracial, 0.5% Native American	Participants were randomly presented with the three psychotherapy vignettes. After completing the preference assessments, participants completed self-report outcome measures.	PPAS, CAEF, HEXACO-60, Relationships Questionnaire.	Openness and secure attachment were found to be significant predictors of preference. Extraversion was found not to be a significant predictor of affinity towards psychodynamic orientation. Results revealed openness ($r=.170$ $p < .05$) and secure attachment ($r=.171$, $p<.05$) were significantly and positively correlated with a preference of psychodynamic orientation. Age ($r=-.151$, $p<.05$) was significantly negatively correlated with a preference for psychodynamic orientation. Higher levels of fearful attachment were predictive of reduced preference for CBT ($r= -.212$, $p< .05$).

Study	Type of study	N (#)	% Female	Age	Ethnicity	Design	Outcome measure	Findings
2.Shumakere et al. (2017) USA	Observational study online survey	69	64%	18 to 25 years (M[SD]: 19.9 [1.7]).	61% White, 13% Hispanic, 12% Asian, 9% Other/multiple, 4% African American	Participants completed several self-report measures in an individual setting.	CPM, EAQ, MLQ, NEO-FFI-3, BDI-II, BAI, SCL-90-R	While there was no statistically significant correlation between the Big Five personality factors and preference for either insight-or action-oriented preference, of the personality facets of Neuroticism (6) Vulnerability and Openness (3) Feelings were both positively correlated with action-oriented scales (partial r=.26, p=.04; partial r=.027, p=.04) and inversely correlated with insight-oriented scales (partial r = -.27, p=.04; partial r=.27, p=.03).
Study	**Type of study**	**N (#)**	**% Female**	**Age**	**Ethnicity**	**Design**	**Outcome measure**	**Findings**
3. Kealy et al. (2020) Canada	Observational study survey	92	0%	M= 41.3, SD= 13.79; range= 20-74.	Not reported	Participants completed several self-report measures**.**	Preference measure for treatment adapted from CPPS focusing on CBT and psychodynamic interpersonal therapies.	The majority of men (45.7%) endorsed a strong preference for individual psychotherapy. Men tended to prefer therapists to teach coping strategies, explore feelings and patterns of experiences, and assist men in working with emotions. Only 20.9% of men preferred brief treatment, and 31.4% perceived a need for long-term therapy (1 year). No data analysis completed.

Study	Type of study	N (#)	% Female	Age	Ethnicity	Design	Outcome measure	Findings
4. Stewart et al. (2013) USA	Observational study Online survey	172	Alaska Natives 84.6% Caucasian 85.7%	Alaska Natives (M= 24.22, SD= 6.39) Caucasian (M= 24.17, SD= 7.57)	67 Alaska Natives, 105 Caucasians	Participants completed several self-report measures.	Rank Preferences for Treatment and Provider Type (The Preferred Counsellor Characteristics Questionnaire), PEI-R, OCIS	For treatment preference, Natural remedies were preferred by ANs with high and low cultural identification compared to Caucasian participants. Relaxation was the most preferred option for AN college students who less strongly identified with AN culture. Additionally, AN participants from both groups were less likely than Caucasian participants to choose therapy as their first treatment option. Both had a significantly higher mean ranking for acupuncture than Caucasians.

Study	Type of study	N (#)	% Female	Age	Ethnicity	Design	Outcome measure	Findings
5. Liddon et al. (2018) **UK**	Cross-sectional online survey	347	67%	(men m=38.13, SD= 15.02; women m=35.11, SD=13.67)	253 White, 94 Other.	Participants completed several self-report measures.	Preference questions, PMI	Both men and women preferred CBT over other therapies listed, and Men preferred group support significantly more than women, although the type of therapy not specified. The sex of the participant predicted 25% (two of eight) of the therapies listed.

Study	Type of study	N (#)	% Female	Age	Ethnicity	Design	Outcome measure	Findings
6. Cole et al. (2018) **USA**	Cross-sectional online survey	315	0%	(M = 47.38, SD = 13.62)	79% White, 12 % African American, 3% Asian American, 3% Latino, 2% Native American, 1% Multiracial.	Men were recruited by Qualtrics panels to complete a survey that included vignettes describing four therapeutic orientations, including PDT, CBT, PCT and PSMT.	GRCS, CMNI-46, ATSPPHS-SF, SSOSH, PPAS-R, CAEF	Gender role socialisation, Self-stigma and attitudes about professional psychological help negatively predicted willingness to engage in all treatment options. Men preferred PPPMT to CBT, but there was no difference in preference between PPPMT and PD or PPPMT and PCT.

Study	Type of study	N (#)	% Female	Age	Ethnicity	Design	Outcome measure	Findings
7. Goates-Jones & Hill (2008) **USA**	Quasi-experimental design	64	78%	mean age was 20.59 (SD =2.19).	41 Caucasian, 8 African American, 6 Asian American, 2 Hispanic, 4 Multiracial, 3 Other.	Volunteer clients were either recruited from an online research pool in the psychology department or senior-level psychology courses. Potential participants were informed that they had to be concerned about a situation or a decision that was currently causing them stress and be prepared to discuss this problem with a psychotherapist for 50 minutes. The first 32 who preferred insight-oriented and first 32 who preferred action-oriented treatment were	OQ-10.2, AS, Preference rating, TC, SES, CERS, RS	There were no significant differences in client-related outcome, psychotherapist rated outcome, or target problem change between clients who received their preferred treatment (insight vs action) and clients who did not receive their preferred treatment. Psychotherapy condition was a significant predictor of client-rated outcome, $F(2, 62) = 4.76$, $p = .03$, $R2 = .08$, such that clients in the action-oriented condition rated their outcome higher than did clients in the insight-oriented condition. Client characteristics were examined as possible covariates but showed no significant correlation with other variables.

						assigned to participate in the psychotherapy conditions; the rest were assigned to the videotape condition. Half of the participants in the quasi-psychotherapy conditions were randomly assigned to their preferred approach (insight- or action-oriented psychotherapy) and half to their nonpreferred approach. Clients were unaware of the condition to which they had been assigned.		
Study	**Type of study**	**N (#)**	**% Female**	**Age**	**Ethnicity**	**Design**	**Outcome measure**	**Findings**
8. Cooper et al. (2019) **USA** *Only general population sample reported	Observational study, online survey	Study 1: n=228, Study 2: n=1305	Study 1: 84.2% Study 2: 50.3%	Study 1: 44.9 (SD= 12.7) Study 2: 44.1 (SD=14.6)	Study 1: 86.7% white, 3.1 % Asian 1.8% Hispanic/Latino, 0.9% Black African, 4.4% Mixed, 3.9% Not disclosed Study 2: 81.6% white, 4.8 % Asian	Two samples of laypersons and one sample of mental health professionals completed an online self-report survey.	C-NIP	Laypersons wanted therapist directiveness and emotional intensity. Robust differences were found between laypersons' and professionals' preferences on these two dimensions: Mental health professionals wanted less therapist directiveness than laypersons (gs = 0.92 and 1.43 between groups) and more emotional intensity (gs=0.49 and 1.33). Women also wanted more warm support than men (gs = 0.40 and 0.57).

				3.5% Hispanic/Latino, 5.9% Black African, 3.5% Mixed, 0.6 %Not disclosed.				

Study	Type of study	N (#)	% Female	Age	Ethnicity	Design	Outcome measure	Findings
9. Bragesjö et al. (2004) **Sweden**	Observational study, postal survey	121	60%	Age distribution 20-30 (29%), 31-40 (17%), 41-50 (26%), 51-60 (28%)	Not reported	Participants filled out self-report questionnaires. In addition, participants were provided with three different therapy vignettes (cognitive, cognitive behavioural and psychodynamic psychotherapy).	Credibility rating based on Borkovec and Nau (1972), preference ranking	Participants expressed a preference for cognitive-behavioural and cognitive forms of psychotherapy. Participants with previous experience of psychotherapy preferred psychodynamic psychotherapy.

Study	Type of study	N (#)	% Female	Age	Ethnicity	Design	Outcome measure	Findings
10. Frövenholt et al. (2007) **Sweden** ***** Only general population sample reported	Observational study, postal survey	121	69%	Age distribution 20–30 years (29%), 31–40 years (17%), 41–50 (26%), 51–60 (28%), and 61+ (0%)	Not reported	Participants filled out self-report questionnaires. In addition, participants were provided with three different therapy vignettes (cognitive, cognitive behavioural and psychodynamic psychotherapy).	Credibility rating based on Borkovec and Nau (1972), preference ranking	The majority of participants within the general population ranked CBT (and 'don't know' responses) first.
Study	**Type of study**	**N (#)**	**% Female**	**Age**	**Ethnicity**	**Design**	**Outcome measure**	**Findings**
11. Sandell et al. (2011) **Sweden *** Only general population sample reported	Observational study, postal survey	121	60%	Age distribution 20-30 (29%), 31-40 (17%), 41-50 (26%), 51-60 (28%)	Not reported	Participants filled out self-report questionnaires, Participants were provided with three different therapy vignettes (cognitive, cognitive behavioural and psychodynamic psychotherapy).	Credibility rating including therapy preference based on Borkovec and Nau (1972), PEX	Six distinct groups of participants were delineated. Some approached psychotherapy in an undifferentiated manner, tending to either embrace or reject all of the methods examined. Others had differentiated ideas about the credibility of specific therapeutic approaches. These clusters were strongly associated with differential treatment preferences. They were also associated with the helpfulness beliefs, type of psychological problems, previous experiences with psychotherapy, and gender.

Study	Type of study	N (#)	% Female	Age	Ethnicity	Design	Outcome measure	Findings
12. Farrell & Deacon (2016) USA * Only general population sample reported	Observational online survey	200	63.5 %	M= 33.6 (SD=11.7)	Not reported	All participants completed the treatment preferences questionnaire, which included 4 vignettes. For each vignette, participants were asked to imagine themselves seeking help for the problem and to rate the importance of four characteristics of psychotherapy on a scale ranging from 0 (not at all important) to 100 (extremely important).	TPQ constructed for the present study	Community members rated relational aspects of psychotherapy higher than scientific credibility across both disorder non-specific vignettes and disorder-specific vignettes. However, scientific credibility was rated as important across problem types among community members.
Study	**Type of study**	**N (#)**	**% Female**	**Age**	**Ethnicity**	**Design**	**Outcome measure**	**Findings**
13. Atkinson et al. (1991) **USA**	Pre-and post-test study	232	80.1%	M=21.9 (SD=4.2)	Caucasian= 197, Latino= 15, Asian American= 5, American Indian= 2, Black= 1, Other= 5, Undisclosed = 7	Participants were provided with self-report questionnaires before and after entering counselling.	Beliefs of causes of psychological problems questionnaire (developed by the authors), Preference for counselling orientation questionnaire, CERS	Female participants were more likely to prefer feeling counselling orientation, whereas men preferred the thinking and action orientations. Ethnicity and religious beliefs did not have a significant impact on preference. This did not change from pre-test and post-treatment.

Key: AS = Action Scale (Hill & Kellems, 2002), ATSPPHS-SF = The Attitudes Towards Seeking Professional Psychological Help Scale—Short Form (Fischer & Farina, 1995), BAI = Beck Anxiety Inventory (Beck & Steer, 1993), BDI-II = Beck Depression Inventory - Second Edition (Beck et al., 1996), CAEF = Counselling approach evaluation form (Lyddon, 1989), CECS = Courtauld Emotional Control Scale (Watson & Greer, 1983), CERS = Counsellor effectiveness rating scale (Atkinson & Wampold, 1982), CMNI-46 = Conformity to masculine norms inventory-46 (Parent & Moradi, 2009), C-NIP = the Cooper-Norcross Inventory of Preferences (Cooper & Norcross, 2016), CPM = Client preferences measure (Goates-Jones & Hill, 2008), EAQ = Existential Anxiety Questionnaire (Van Bruggen Vos et al., 2015), GRCS = Gender role conflict scale (O'Neil et al. 1986), HEXACO-60 = a measure of personality traits (Ashton & Lee, 2009), MLQ = the Meaning in Life Questionnaire (Steger et al., 2006), NEO-FFI = NEO Five-Factor Inventory (Costa & McCrae, 1989), NEO-FFI-3 = Neo-Five-Factor Inventory-3 (Costa & McCrae, 1992), OCIS = Orthogonal Cultural Identification Scale (Oetting & Beauvais, 1990-1991),OQ-10.2= Outcome questionnaire (Lambert et al., 2005), Preferred Counselor Characteristics questionnaire (Atkinson et al., 1986), PEI-R= Psychotherapy Expectancy Inventory-Revised (Rickers-Ovsiankina,et al., 1971), PEX = The psychotherapy preferences & experiences Questionnaire (Clinton & Sandell, 2007), PMI = Positive mindset Index (Barry et al., 2014), PPAS = Preference for Psychotherapy Approaches Scale (Holler, 2007), PPAS-R = Revised (Holler, 2007; Pretronzi & Masciale, 2015), Relationships Questionnaire (Bartholomew & Horowitz, 1991), RS = Relationship scale (Hill & Kellems, 2002), SCL-90-R = the Symptom Checklist-90-Revised (Derogatis, 1994), SES = Session evaluation scale (Hill & Kellems, 2002), SSOSH = Self-stigma of help-seeking scale (Vogel et al., 2006), TC = Target Complaints (Battle et al., 1966).

Review

Review structure

Due to the small number of studies and heterogeneity of the studies in terms of study design, therapies compared, outcome measures, sample size, along with several different statistics reported in the studies (including correlations, odds ratios, means and standard deviations, clusters, and p-value) a meta-analysis, including subgroup analysis, was not deemed appropriate. Instead, a narrative review was chosen as this would allow for further exploration of any variability between individual studies. In exploring psychotherapy preferences in the general population, this review is divided into sections relating to the various questions investigated, with relevant review findings structured by thematic content, as well as critiques of the studies using published criteria. This is followed by a discussion that includes a summary of the review findings as well as a discussion of clinical and research implications. Due to the different types of studies included in the review, several appraisal tools were used to assess their quality. The quality of the included survey-based studies was assessed using the Critical Appraisal Skills Programme (CASP, 2017) checklists for cohort studies and found to be of varying poor quality (See appendix A). The quality of the cross-sectional survey-based studies was evaluated using the Joanna Biggs checklist (Munn & Aromataris, 2020) for cross-sectional studies. It was found to be of overall poor quality (See appendix A). Similarly, the quality of the quasi-experimental study (Goates-Jones & Hill, 2008) and pre-post study (Atkinson et al., 1991) were assessed using the NICE (2012) quality appraisal checklist for quantitative intervention studies and were evaluated as poor quality (See appendix A).

Overview of studies

Thirteen studies were included in this review, and a brief overview for reference is provided in Table 2, including demographic details, type of preference measure and psychotherapies compared.

Design

Eleven studies employed a survey-based design where all participants completed self-report measures either online or via post (Pretronzi & Masciale, 2015; Shumaker et al., 2017; Stewart et al., 2013; Liddon et al., 2018; Cole et al., 2018; Cooper et al., 2019; Bragesjö et al.,2004; Frövenholt et al., 2007; Sandell et al., 2011; Farrell & Deacon, 2016). One study employed a non-comparative before and after design where participants completed self-report measures before receiving therapy and again completed self-report measures either after the third or final session, whichever came first (Atkinson et al., 1991). Finally, one study employed a quasi-experimental design involving two conditions (Goates-Jones & Hill, 2008). In condition one, participants were assigned their preferred choice of therapy and spent one 50-minute session with a therapist discussing an issue. In the quasi-psychotherapy conditions, half of the participants were randomly assigned to their preferred approach (insight- or action-oriented psychotherapy) and half to their nonpreferred approach. In the second condition, participants were watching a videotape of an insight-oriented psychotherapy session.

Sample

Most of the studies utilised convenience sampling, with four American studies using relatively small university college students (Shumaker et al., 2017; Stewart et al., 2013; Goates-Jones & Hill, 2008; Atkinson et al., 1991). Eight of the included studies recruited samples

online (Pretronzi & Masciale, 2015; Shumaker et al., 2017; Williams et al., 2016; Stewart et al., 2013; Liddon et al., 2018; Cole et al., 2018; Cooper et al., 2019; Farrell & Deacon, 2016). In addition, three of the studies recruited participants via the post (Bragesjö et al., 2004; Frövenholt et al., 2007; Sandell et al., 2011) and in-person recruitment from the general public (Kealy et al., 2020; Goates-Jones & Hill, 2008; Atkinson et al., 1991). The studies were conducted across different countries, including the United Kingdom, Sweden, the United States of America, or Canada, with the majority of studies, eight, conducted in the USA.

Therapies compared

The type of psychotherapies included in each study varied both in type and how many were compared. For example, some studies compared two therapies (Goates-Jones & Hill, 2008; Farrell & Deacon, 2016; Atkinson et al., 1991; Kealy et al., 2020; Shumaker et al., 2017), and some compared seven (Stewart et al., 2013; Liddon et al., 2018) with the majority of studies comparing between two and four therapies.

The majority of studies, eight out of thirteen, compared CBT to one or more types of psychotherapies, including Psychodynamic psychotherapy, person-centred therapy, Positive Psychology Positive Masculinity Therapy, life coaching, counselling, hypnotherapy, stress management, support group and other therapies such as relaxation, natural remedies, acupuncture and medication (Pretronzi & Masciale, 2015; Kealy et al., 2020; Stewart et al., 2013; Liddon et al., 2018; Cole et al., 2018; Bragesjö et al., 2004; Frövenholt et al., 2007; Sandell et al., 2011).

Four of the studies carried out in the USA compared action-oriented therapies with insight-oriented therapies (Atkinson et al., 1991; Cooper et al., 2019; Goates-Jones & Hill, 2008; Shumaker et al., 2017). Farrell and Deacon (2016) compared relation aspects of

psychotherapy and the scientific credibility of psychotherapy. These are broader definitions of therapies and are primarily used in the USA, limiting the generalisability to other studies.

Measures

All studies relied on self-report outcome measures only. Four studies used therapy preference ranking measures, although none reported how these were designed (Bragesjö et al., 2004; Frövenholt et al., 2007; Sandell et al., 2011; Stewart et al., 2013). Different preference measures were used across all studies, with five studies adapting, combining or creating their measures with limited information regarding validity and reliability (Pretronzi & Masciale, 2015; Atkinson et al., 1991; Goates-Jones & Hill, 2008; Kealy et al., 2020; Farrell & Deacon, 2016).

The other measures used included mood, general well-being, therapy, personality, and other more specific measures for existential anxiety, positive mindset, gender role conflict and conformity to masculine norms, attitudes towards help-seeking, and credibility of therapy. Two studies (Pretronzi & Masciale, 2015; Shumaker et al., 2017) included a personality measure, the HEXACO-60 (Ashton & Lee, 2009) and the NEO-FFI-3 (Costa & McCrae, 1992). Two studies (Shumaker et al., 2017; Goates-Jones & Hill, 2008) included a general well-being measure including MLQ (Steger et al., 2006) and SCL-90-R (Derogatis, 1994) and OQ-10.2 (Lambert et al., 2005). Only one study (Shumaker et al., 2017) used two well-established mood measures BAI (Beck & Steer, 1993), BDI-II (Beck et al., 1996) and found no significant correlation with preference. The two studies involving a before and after design (Atkinson et al., 1991) and a quasi-experimental design (Goates-Jones & Hill, 2008) included a variety of therapy measures with good validity and reliability, such as the AS (Hill

& Kellems, 2002), RS (Hill & Kellems, 2002), TC (Battle et al., 1966), and SES (Hill & Kellems, 2002).

Six of the studies included vignettes of the psychotherapies. Again, these varied in terms of scenarios presented in the vignettes (Pretronzi & Masciale, 2015; Cole et al., 2018; Bragesjö et al., 2004; Frövenholt et al., 2007; Sandell et al., 2011; Farrell & Deacon, 2016). For instance, in some analogue studies, participants were asked a variation of the question, "If this had happened to you, what would you do?". Bragesjö and colleagues (2004), Frövenholt and colleagues (2007) and Sandell and colleagues (2011) stated the vignettes were developed and validated by 2-5 Psychologists in Sweden. Pretronzi and Masciale (2015) and Cole and colleagues (2018) used the Psychotherapy Approaches Scale (Holler, 2007). Farrell and Deacon (2016) developed the Treatment Preference Questionnaire consisting of 4 vignettes for the study, including two disorder-nonspecific vignettes and two vignettes where participants were asked to consider two specific anxiety disorders, OCD and Panic disorder, in randomised order. However, limited information was provided on how these vignettes were developed or validated.

Across studies, limited information was provided regarding how the vignettes were validated or, for example, if readability was checked. Additionally, limited information was provided on how vignettes were administered. For instance, whether the order of the vignettes was randomised.

Table 2.

A brief overview of the studies included in the review

Study	Country	Population	Study design	Type of therapies	Preference measure
Pretronzi & Masciale (2015)	USA	202 participants recruited via the Amazon M-Turk survey site	Survey	CBT, PCT, PDT	Therapy Vignette, PPAS combined with CAEF
Shumaker et al. (2017)	USA	69 Undergraduate psychology students	Survey	Insight-orientated therapy, action-oriented therapy	CPM
Kealy et al. (2020)	Canada	92 men attending three outpatient clinics	Survey	CBT, psychodynamic, interpersonal therapies	Adapted CPPS
Stewart et al. (2013)	USA	172 college students studying psychology	Survey	CBT, Psychotherapy, life coaching, counselling, hypnotherapy, stress management, support group	Preference ranking measure, PCCQ (Preferred Counselor Characteristic Questionnaire), PEI-R
Liddon et al. (2018)	UK	347 participants recruited via social media	Survey	CBT, psychotherapy, Life Coaching, Counselling, Hypnotherapy, stress management, support group	Preference rating measure
Cole et al. (2018)	USA	315 men recruited via Qualtrics panels	Survey	PDT, CBT, PCT & PSMT	PPAS-R
Goates-Jones & Hill (2008)	USA	64 undergraduate psychology students	Quasi-experimental	Insight-orientated therapy, action-oriented therapy	CPF
Cooper et al. (2019)	USA	Two samples of lay persons (N= 228, 1,305) with one sample of mental health professionals (N=615) recruited via convenience sampling and representative sampling	Survey	Therapy activity preference on four domains therapist/client directiveness, emotional intensity/emotional reserve, past/present orientation, warm support/focused challenge.	C-NIP

Bragesjö et al. (2004)	Sweden	130 participants recruited via post	Survey	CBT, CT, PDT	Preference ranking, therapy vignettes
Frövenholt et al. (2007)	Sweden	Three groups of participants (N= 121 general public same as Bragejo et al., 2004), (N= 118 outpatient), (N= 48, long history of psychiatric care) were recruited via post and four psychiatric clinics and the Swedish National Association for social, mental health.	Survey	CBT, CT, PDT	Preference ranking, therapy vignettes
Sandell et al. (2011)	Sweden	Three groups of participants (N= 121 general public same as Bragejo et al., 2004), (N= 118 outpatient), (N= 48, long history of psychiatric care) were recruited via post and four psychiatric clinics and the Swedish National Association for social, mental health.	Survey	CBT, CT, PDT	Preference ranking, PEX, therapy vignettes
Farrell & Deacon (2016)	USA	399 participants consisting of therapists n=199 and Community members n=200.	Survey	Relational aspects of psychotherapy vs scientific credibility of psychotherapy	TPQ, therapy case vignettes
Atkinson et al. (1991)	USA	232 university students recruited via university counselling centre	Pre-/post-test design	Feeling-oriented counselling, thinking/action-oriented counselling	PCOQ based on Hutchins (1984) questionnaire

Results

Do people in the general population have psychotherapy preferences? CBT compared to other psychotherapies

In the studies comparing CBT to other therapies, a mixed picture emerged, with some studies reporting participants preferred CBT over psychodynamic psychotherapy or other therapies (Bragesjö et al., 2004; Frövenholt et al., 2007; Liddon et al., 2018; Kealy et al., 2020). In comparison, others reported a preference for other therapies such as PDT and PPPMT over CBT and other therapies (Cole et al., 2018; Sandell et al., 2017). For example, Cole and colleagues (2018) reported men preferred PPPMT to CBT, but there was no difference in preference between PPPMT and PD or PPPMT and PCT. Similarly, Kealy and colleagues (2020), which included a male-only study, found participants preferred CBT components compared to Psychodynamic psychotherapy components. However, this was based purely on descriptive data with no further data analysis.

Several differences were noted between the studies. Two studies included therapies that did not have a purely western foundation, including therapies more broadly used to treat mental health (Stewart et al., 2013; Liddon et al., 2018). Across those studies, no general information was provided to describe the various therapies, such as what relaxation, stress management, or support groups consisted of. Only Stewart and colleagues (2013) did not include a description of what type of psychotherapy was included in the study. Instead, they alluded to therapies commonly used within primary care, such as CBT. All studies varied in preference measures and sample. In summary, the studies that have compared CBT to other psychotherapies provide a mixed picture, with half finding a preference for CBT and the other finding a preference for Psychodynamic psychotherapy or other therapy. This is similar to previous reviews within the clinical population (Swift et al., 2018).

Insight-oriented vs Action-oriented therapies

Another way psychotherapies have been compared has been using different and broader terms. While the categorisations potentially overlap with the other studies, they are presented differently and are considered separately here. For example, Goates-Jones and Hill (2008) found that clients in the action-oriented condition rated their outcome higher than clients in the insight-oriented condition. Similarly, Shumaker and colleagues (2017) and Cooper and colleagues (2019) found that participants preferred Action-oriented therapy over Insight-oriented therapy. In contrast, Atkinson and colleagues (1991) found participants overall preferred insight-oriented therapy over Action-oriented therapy. A few differences were noted between the studies. The Goates-Jones and Hill (2008) study included college-aged students who were stressed and took part in the study during final exam time. As a result, they may have desired immediate stress relief, which may be more likely to occur during a single session of action-oriented psychotherapy than it is during an insight-oriented psychotherapy session. Whereas participants in the study by Atkinson and colleagues (1991) were college students seeking counselling and completed the self-report measures after the final or 3rd session. Another limitation of this study is the high attrition rate between Parts 1 and 2 and the fact that clients who evaluated their counselling experience were older and more likely to be women than those who only completed the initial questionnaire. Additionally, the preference measure used in the study had a low test-retest reliability of the aetiology beliefs and preferred counselling orientation items.

In summary, studies comparing action-oriented and Insight-oriented/ feeling-oriented, found a majority of participants preferred action-oriented therapy. Similarly, to the studies comparing CBT to other therapies, these studies also relied solely on self-report outcome measures and some preference ranking questionnaires. However, none reported how the latter

were designed. In addition, lack of standardisation of outcome measures across the studies complicates interpretation and makes the accumulation of results challenging. Three of the studies used the Client Preferences measure (CPM) created by Goates-Jones and Hill (2018) and have only been used across student populations. Atkinson and colleagues (2001) adapted the preference measure based on a previously validated questionnaire by Hutchins (1984) without providing any evidence of reliability or validity of the measure. One explanation could be that the studies were conducted in different countries, such as Canada, the United States, the United Kingdom, and Sweden, and the measures were chosen based on familiarity, reliability, and validity for their particular population. However, no study provided information about this.

Second, the studies reviewed used various methods to assess patient preference and how information about various treatment options was presented most likely influenced the findings. Throughout all studies, most participants reported having previously received treatment or therapy for their mental health. However, none of the studies reported how familiar participants were with the psychotherapies included in the studies.

Thirdly none of the studies reported a significant correlation of psychological distress with any therapy preference. The participants in the study by Goates-Jones and Hill (2008) had to be concerned about a situation or decision causing them stress, however severity was not measured. Other studies recruiting participants from outpatient or counselling clinics did not include any mood or well-being measures (Atkinson et al., 1991; Kealy et al., 2020).

Relational-oriented vs scientific-oriented aspects of therapy

A single study by Farrell and Deacon (2016) investigated participants preference of the scientific credibility and relational aspects of psychotherapy using a self-report preference measure using four vignettes describing four scenarios where respondents are asked to imagine seeking help. Two of the vignettes involved disorder-nonspecific scenarios such as seeking help to "better understand oneself "or "difficulties related to a relationship break-down". The disorder specific vignettes described specific anxiety disorders, OCD and Panic disorder specifically. They found community members rated relational aspects of psychotherapy higher than scientific credibility across both disorder non-specific vignettes and disorder-specific vignettes, albeit to a lesser extent. Scientific credibility was rated as important across disorder-specific vignettes among community members. The preference measure including the four vignettes, the Treatment Preference Questionnaire (TPQ) was developed by the authors, but they did not report validity and reliability of the measure. Nor did they report people's previous experience of therapy or understanding or potential experience of anxiety disorders which could influenced participants preference.

This is the first study to compare relational aspects of therapy to the scientific credibility of psychotherapy within the general population, while their findings are similar to studies within the clinical population indicating participants largely preferred the relational-oriented aspects of therapy (Swan & Heesacker, 2013; Swift & Callahan, 2010).

Are there specific individual characteristics that predict preference for psychotherapies within the general population?

Variation in the type of dispositional characteristics measured

Of the studies including dispositional characteristics in their analysis, most studies found certain characteristics were significantly correlated with therapy preference. However, these varied widely.

Extrinsic characteristics

Cole and colleagues (2018) found that age, attitudes towards help-seeking and gender role conflict predicted a decrease in preference for therapy. Similarly, Pretronzi and Masciale (2015) found age was negatively correlated with preference for psychodynamic psychotherapy.

Atkinson and colleagues (1991) found that female participants preferred feeling counselling orientation, whereas men preferred the thinking and action orientation. Similarly, Liddon and colleagues (2018) found both men and women preferred CBT as their first choice; however, gender predicted preference for psychotherapy (women) and support groups (men). Cooper and colleagues (2019), investigating treatment activity, found women wanted more warm support than men. Atkinson and colleagues (1991) found ethnicity and religious beliefs did not have a significant impact on therapy preference. Stewart and colleagues (2013) found Alaskan Native participants with both high and low cultural identification preferred other mental health treatments such as natural remedies to therapy compared to Caucasian participants. However, they found no significant difference in treatment preferences in terms of participant gender or age. Goates-Jones and Hill (2008) was the only study examining

client characteristics as possible covariates and found no significant correlation with other variables, including therapy preference.

Bragesjö and colleagues (2004) found participants with previous experience of psychotherapy preferred psychodynamic psychotherapy. In contrast, Pretronzi and Masciale (2015) found the previous study of psychology ($r=.142$, $p<.05$) were significantly correlated with a preference of CBT orientation. In contrast, Cole and colleagues (2018) found people with previous experience of psychotherapy were negatively correlated with all types of therapy preference. Unfortunately, information regarding the qualities of previous therapy experiences, whether positive or negative, was not detailed, making it difficult to draw further conclusions. Overall similar to previous studies within the clinical population, this paints a mixed view of some extrinsic characteristics such as gender, age, and prior therapy experience influencing people's preference in some studies while not in others.

Most studies reported educational levels or included university students. This is important to consider because studies have shown that education level impacts attitudes toward mental health and care outcomes across racial/ethnic groups (Alvidrez et al., 1996; Cabral & Smith, 2011). On the other hand, most studies included only basic ethnicity data, with some of the studies defined ethnicity as a percentage of Caucasians (Stewart et al., 2013; Kealy et al., 2020; Cooper et al., 2019; Farrell & Deacon, 2016). However, ethnic minorities vary significantly from one another, and thus each may have a different level of importance for preference accommodation than Caucasian participants. While some have suggested that ethnic minorities avoid therapy because they believe their preferences will not be met (González et al., 2010; Smith et al., 2011; Sue & Zane, 2009; Zane et al., 2004), research has yet to examine whether specific ethnic groups respond differently when their preferences are not met. Overall, this highlights the necessity to consider the diversity of sampling.

Intrinsic Characteristics

Pretronzi and Masciale (2015) evaluated attachment style and personality traits as predictors of therapy preference. They found that openness ($r=.170$ $p < .05$) and secure attachment ($r=.171$, $p<.05$) were significantly and positively correlated with a preference for psychodynamic orientation. Additionally, fearful attachment ($r=-.212$, $p<.01$) was significantly correlated with a preference of CBT orientation.

Shumaker and colleagues (2017) found no significant relationship between therapy preference and EA. In comparison, there was no statistically significant correlation between the Big Five personality factors and preference for either insight-or action-oriented preference. However, they did find a significant correlation between subscales and therapy preference. They found the subscales of Neuroticism: vulnerability and subscale of Openness: feelings were both positively correlated with action-oriented scales (partial $r=.26$, $p=.04$; partial $r=.027$, $p=.04$). While the two studies used different personality measures, the authors argue there is a theoretically significant pattern of correlations between the predictor variables of the HEXACO-60 scales and scales measuring the NEO-FFI Big Five personality factors (Ashton & Lee, 2005, 2007).

Overall studies in the review varied widely in their reporting of dispositional characteristics. Only two studies (Pretronzi & Masciale, 2015; Shumaker et al., 2017) investigated intrinsic characteristics, personality traits and attachment style. As Shumaker and colleagues (2017) only found two subscales within Openness and Neuroticism positively correlated with Action-oriented therapy preference, it is difficult to compare these findings with Pretronzi and Masciale (2015). Interestingly, the findings of their study showed some results that correlate with other studies concerning the degree to which specific personality

characteristics predicted preferences for different psychotherapeutic modalities (Holler, 2007; Ogunfowora & Drapeau, 2008). Some researchers have suggested that different associations exist between personality traits and preferences for psychotherapy across populations. However, the evidence base is limited due to the sparsity of research in the field.

Discussion

Several reviews spanning the previous seven decades have charted the broad array of positive effects accommodating client preferences in therapy (Rosen, 1967; Glass et al., 2001; Lindhiem et al., 2014; Swift & Callahan, 2009; Swift et al., 2011, 2013, 2018; Windle et al., 2020). However, this is the first review to consider preferences for psychotherapy within the general population with a disorder-nonspecific focus. Thus, it posed two questions: i) Do people in the general population have psychotherapy preferences? And ii) Are there specific individual characteristics that predict preference for psychotherapies within the general population?

Limitations

The current review has several limitations. First, because we kept all studies that met our inclusion criteria (in the interest of thoroughness), the analysis included studies of varying quality. Most of the studies were deemed to be of moderate to poor quality. While all studies used some outcome measures with established validity and reliability, several outcome measures were noted. Few used similar preference measures or neglected to provide details of how preferences were measured. While this is not uncommon in research, additional validity tests for these measures are required. It is common for observational studies to report insufficient data, so it is difficult to perform a meta-analysis. Guidelines for reporting observational studies do exist (for example, the Strengthening the Reporting of Observational Studies Checklist [STROBE]). Still, Journals are not yet required to follow them (Vandenbroucke et al., 2007). A recent meta-analysis identified 80 checklists; however, most are not validated or used within specific populations and, therefore, not easily generalised (Metelli & Chaimani, 2020). None of the observational studies utilised STROBE

reporting guidelines (Altman et al., 2005) or similar, which is an issue that has been highlighted across the research field (da Costa et al., 2011).

In the studies comparing CBT to other therapies, a mixed picture emerged. Some studies reported that, regardless of individual characteristics, participants largely preferred CBT over psychodynamic psychotherapy or other therapies, while others reported preferences for other therapies such as PPPMT over CBT. Also, four studies based in the USA used broader and different therapy descriptions, insight-oriented and action-oriented, making it difficult to compare to other studies. This highlights another limitation as CBT was used in two-thirds of the reviewed studies, ignoring the majority of psychotherapies used in routine practise.

In terms of dispositional characteristics, studies varied significantly. Similar to previous clinical studies and a previous meta-analysis by Swift and colleagues (2013), various demographic variables positively or negatively correlated with therapy preferences. The studies, including intrinsic measures, such as personality measures and attachment style, found openness and secure attachment were significantly and positively correlated with a preference for psychodynamic orientation and fearful attachment was significantly correlated with a preference for a CBT orientation.

Not all studies included information about individual participant characteristics, such as ethnic origin or socioeconomic status. The majority of those who did include demographic information found that most participants were white and well educated. As a result, participants may not be representative of the population, and findings regarding the different treatment preferences may not apply to people from all cultures and backgrounds.

Overall, there was a notable lack of theoretical or empirical basis for the design of studies, including the development of the vignettes provided, either from psychological theory or from the research literature. None of the studies, except for Kealy and colleagues

(2020), carried out power analyses; as a result, it was unclear whether they were sufficiently powered to detect any intervention or predictor effects if they existed. Additionally, confidence intervals and effect sizes were not reported in most studies, limiting objective assessment of the significance of the effects and the size of the effects in the population (Metelli & Chaimani, 2020).

The majority of the studies posed hypothetical scenarios. Assessing participants' preferences who are actively seeking treatment may differ from asking hypothetical questions such as providing a hypothetical scenario to individuals who have not encountered mental health problems, do not exhibit associated mental health symptoms, or are not actively seeking treatment. In the current review, many of the participants were not people seeking support for their mental health and thus reflect preferences of the general public more than those of individuals seeking therapy. While both analogue and experimental studies found similar preferences for therapy, the degree of psychological distress prompting a person to seek treatment could act as a moderator of their preference of therapy which has not been explored in the literature. Finally, while the preliminary findings of this review confirm previously identified trends in the literature, they do not address the more pressing issues of causality and utility. Attending to common factors (Messer & Wampold, 2002) and therapy components amenable to intervention, such as therapist communication skills, would appear to be fruitful areas for investigation. (Sue & Lam, 2002).

The Theory of planned behaviour (Ajzen, 1991) could not be supported by the evidence as most of the studies were analogue and thus did not provide the possibility of assessing behaviour based on preference. While in the experimental studies participants who had a preference for a psychotherapy and were provided with their preferred option their outcome was not compared to a control group. Further research including experimental

studies are therefore needed to further assess the proposed theory of planned behaviour (Ajzen, 1991).

Future research

The findings of this review provided some preliminary evidence of the importance of preference among prospective and current psychotherapy clients in the general population. However, further research is needed on larger samples of the general population further to elucidate the importance of therapy preference in therapy preference. It would also be important for applied researchers to investigate the degree to which the dispositional attributes of individuals (such as personality traits) affect their therapeutic preferences.

It is also critical that future empirical studies of preferences include a comprehensive report on client demographic variables. Across the studies, even when the correlates were tested individually, the issue of low power persisted. This low power issue may partially explain the lack of significance for the majority of predictor variables in this review. Low power is a frequent problem with multiple regression analyses (Vandenbroucke et al., 2007).

This review found many studies in the general population were analogue survey-based design, one of the more common types of studies in psychological research (Protogerou & Hagger, 2019). Online survey-based designs hold some advantages, including efficacy in terms of money and time (Lyons et al., 2005; Wright, 2005; Skitka & Sargis, 2006). Additionally, the advantages of Web-based survey methods include reduced response bias and the potential for increased response rates as a result of increased comfort. Increased comfort may result from a stronger sense of anonymity, potentially increasing the reliability and validity of the upcoming survey data (Protogerou & Hagger, 2019). Given the prominence of survey research in psychology, developing appropriate methods for assessing

the quality of survey research would benefit both researchers conducting survey research and data analysts evaluating it.

While the preliminary findings of this review confirm previously recognised trends in the literature, they do not address the more important issues of causality and utility. Attending to common factors (Messer & Wampold, 2002) and therapy components, such as therapist communication skills, could potentially be another area for investigation (Sue & Zane, 2009).

Clinical implications

The findings of previous meta-analyses demonstrate that when client preferences are addressed, fewer clients end therapy prematurely, and clients demonstrate greater therapy outcome improvement. The current review provides preliminary evidence on predictors of preference within the general population which could potentially influence therapy outcome. Incorporating client preferences into psychotherapy has been recommended by the National Institute for Health and Care Excellence (NICE, 2011) as part of person-centred care in the past decade. It should be considered a clinical recommendation for the general population. The findings from the review suggest people in the general population have therapy preferences. Therefore, it is critical for therapists not to presume they know their clients' preferences but to work with each individual client to explore and work with those preferences. In particular, before the start of treatment, it can be valuable to ascertain clients' preferences. This assessment may include questions about preferred roles in therapy, therapist traits, and therapy modalities. Addressing this can be a way of attempting to overcome barriers that may prevent clients from expressing their preferences, such as a lack of information about available therapy options, a lack of confidence in the therapist, or a reluctance to change. Because this is the first review exploring therapy preferences within the general population, it may be too soon to assess the extent of the implications for

practitioners. However, practitioners should be aware of and sensitive to their client's dispositional characteristics, such as personality and attachment, and how they may relate to therapy engagement. Based on the findings so far, clinicians who use an integrative approach may find it useful to tailor their treatment to client preferences based on the predictive dispositional client highlighted in this review.

Conclusion

The current literature offers some evidence that people within the general population have preferences and that there is some indication that these preferences are influenced by dispositional client characteristics. However, due to the study design, causality cannot be inferred. The array of outcome measures and findings makes it difficult to draw firm conclusions, and the implications for future practice and research should be considered.

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Section B

Alexandra Liv Juel Nielsen BSc Hons MSc

Exploring clusters of psychotherapy credibility within the general population

7867 (+ 400 words)

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Abstract

People's perceptions of treatment credibility reflect their beliefs about the personal logicality, suitability, and efficacy of a treatment (Devilly & Borkovec, 2000). Credibility has long been thought to be an important common factor influencing both the therapeutic alliance and clinical outcome (Constantino et al., 2018). Currently, there is a paucity of research investigating treatment credibility and preference in individuals within the general population, and to my knowledge, no study has examined treatment preference or treatment credibility for an alternative mind-body intervention such as Mindfulness-Based Cognitive Therapy versus a "gold standard" psychological treatment. This study aimed to explore how participants divided themselves in 'credibility and preference clusters' based on their ratings of three forms of therapy specifically MCBT, CBT and PDT along with measures of general wellbeing, trait mindfulness and personality. One hundred and seventy-four participants (52.6 % female, mean age 33 years, SD=13.38) completed the online survey study. Results found participants fit into three preference and four credibility clusters. Further analysis found gender, marital status, and stress predicted cluster membership. Men were more likely than women to rate all psychotherapies in low credibility and not prefer any of them. Similarly, participants who were divorced rated all psychotherapies low in credibility. Participants experiencing increased stress were more likely to rate all psychotherapies high in credibility.

Keywords:

Credibility, preference, psychotherapy, dispositional characteristics

Introduction

Credibility

Patients' perceptions of treatment credibility reflect their beliefs about the personal logicality, suitability, and efficacy of a treatment (Devilly & Borkovec, 2000). Thus, patient-perceived treatment credibility was historically regarded as a nuisance variable that needed to be controlled in comparative clinical trials to isolate the effect of the treatments' specific mechanisms rather than differences in patients' supposedly extraneous beliefs about the treatments (Kazdin, 1979).

Even though credibility has long been thought to be an important common factor influencing both the therapeutic alliance and clinical outcome, there has only been one recent review of the credibility–outcome relationship (Constantino et al., 2018; Connolly Gibbons et al., 2003; Hardy et al., 1995; Joyce & Piper, 1998; Morrison & Shapiro, 1987; Wong et al., 2003). This relates to the ongoing debate within the field of how therapy works. There is a theoretical divide among researchers of what the “active ingredients” are in therapy, whether it is evidence-based interventions with specific techniques or common factors such as therapeutic alliance shared across therapies (Frank & Frank, 1991; Wampold, 2001). However, among consumers of psychotherapy, research suggests a preference for common factors (Swift & Callahan, 2010). This may even extend to people who have not experienced psychotherapy. In a recent meta-analysis by Constantino and colleagues (2018), they found no statistically significant moderating effects on the credibility-outcome relationships for presenting mental health concern, age, gender or treatment modality. That is, the link between patient-perceived credibility and treatment outcome was generally consistent and robust across all three patient, treatment, and research dimensions.

An ongoing issue within the literature is the distinction between patients' treatment credibility belief and outcome expectations. Some argue that the credibility belief is at least a

partial predictor of one's prognostic outcome expectation (Hardy et al., 1995). Treatment credibility and outcome expectation are frequently positively and moderately correlated, lending support to this viewpoint (Ametrano et al., 2017; Constantino et al., 2014). Furthermore, research has shown that providing a logical and compelling treatment rationale (components of credibility) can increase patients' post rationale outcome expectation (Ametrano et al., 2017).

Despite being moderately correlated, there were significant differences between treatment credibility and outcome expectation. Whereas treatment credibility can only be formed after some exposure to the intervention, patient outcome expectation can and frequently is present before patients interact with their practitioner or receive any substantive information about the upcoming treatment. Furthermore, treatment credibility and outcome expectation each explain a different proportion of the variation in patient outcomes (Mooney et al., 2014).

Treatment preference and perception of treatment credibility

Credibility is a factor that has been suggested as a predictor of psychotherapy preference (Strong, 1968). Clients' preference for different forms of psychotherapy has been associated with more positive treatment outcomes if they are matched. The most comprehensive and systematic reviews currently available, from Swift and colleagues (2018) and Lindhiem and colleagues (2014), provide compelling evidence of client preferences' significance. Clients who receive a form of therapy that is consistent with their preferences are less likely to drop out of therapy, report stronger alliances with their therapists, and demonstrate better outcomes at the end of therapy when compared to clients who are not allocated to therapy based on their preferences. These effects, and their practical implications, are both significant, as studies have consistently found that receiving a preferred therapy has a greater impact on

outcomes than channelling clients toward interventions that have been empirically validated (Norcroft, 2005). Most studies exploring the credibility of therapies have compared CBT to psychodynamic psychotherapy (PDT) or other traditional psychotherapies (Swift & Callahan, 2010; Michalak & Heidenreich, 2018). CBT is based on Beck's (1964) cognitive model of mental illness. It is based on the idea that our thoughts, feelings, what we do, and how our bodies feel, are all connected. If we change one of these, we can alter all the others. CBT typically focuses on creating change by helping people change their thinking and what they do (Beck, 1964).

The roots of PDT can be traced back to Freud's approach to psychoanalysis, Carl Jung, Alfred Adler, Otto Rank, and Melanie Klein are all widely acknowledged for their contributions to the concept and application of psychodynamics (Batemen, 2010). PDT's goal is to bring the unconscious mind into consciousness, assisting individuals in unravelling, experiencing, and understanding their true, deep-rooted feelings in order to resolve them. According to the theory that our unconscious holds on to painful feelings and memories that are too difficult for the conscious mind to process (Bateman, 2010). The literature show a mixed picture when comparing CBT and PDT, with some studies finding people prefer CBT over PDT or vice versa (Swift et al., 2010;2011;2013).

There is growing interest in using non-traditional approaches such as Mindfulness-based interventions (MBI). Studies of traditional treatments versus MBIs for psychological problems and factors that determine preference for a MBI, however, appear to be scarce (Michalak & Heidenreich, 2018).

Kabat-Zinn's (1990) definition of mindfulness characterizes it as paying attention in a specific way: on purpose, in the present moment, and nonjudgmentally. Mindfulness is based on the practice of Eastern meditation. Several mindfulness-based therapeutic programs have been developed over the last three decades. One of the most prominent is the Mindfulness-

based Cognitive Therapy created for relapse prevention in depression (Segal et al., 2013). In addition, MBIs have been incorporated into clinical and non-clinical settings to help individuals cope with daily stressors, foster emotional growth (Kabat-Zinn et al., 1994; Lindsay & Creswell, 2017), and alleviate symptoms of several mental and physical conditions (Baer, 2003). In addition, MBIs have been suggested as possible alternative treatments for individuals who are hesitant or unable to engage in traditional therapies such as CBT because of the stigma associated with mental health services (Goldin et al., 2012; Norton et al., 2015).

The National Institute for Health and Care Excellence (NICE) guidelines are evidence-based recommendations for health and care in England. They define the care and services that are appropriate for the majority of people with a specific condition or need, as well as people in specific circumstances or settings (NICE, 2011).

For the treatment of common mental health disorders, such as anxiety and depression, NICE recommends psychological therapies as part of a stepped-care model. This entails first providing the least intrusive, most effective intervention and then monitoring progress and outcomes to ensure the person progresses to the next step if necessary (NICE, 2011). CBT, PDT and MBCT are recommended by the NHS for treatment of some of the common mental health disorders (NICE, 2011).

Psychological theories

Researchers have noted the limited theory around the factors moderating treatment credibility (Arnkoff et al., 2002). Expectancy theory has gained support in recent years, and the expectancy construct has largely replaced related constructs in the field, such as faith and hope (Peck & Coleman, 1991). Patients' trust in a health care treatment and practitioner is frequently regarded as a common factor in effective psychotherapy (Strong, 1968). Based on social psychological research that identified credibility as a predictor of influence (Hovland et

al., 1953; Constantino et al., 2018), therapy can be compared to a social influence process in which therapists establish themselves as professionally credible by representing knowledge, trustworthiness, and attractiveness (the latter suggesting being likeable and similar to the client) (Constantino et al., 2018).

Dispositional characteristics as predictors of credibility

There has been little investigation into the potential impact of personal characteristics on credibility (Constantino et al., 2018). Only one study by Constantino and colleagues (2014) has looked at the relationship between individual characteristics and credibility ratings in a clinical sample so far. They recruited participants from a university outpatient mental health training clinic. They found the most reliable predictor of patients' treatment beliefs was their symptomatology. Patients who endorsed more mania symptoms had more optimistic outcome expectations. Another study by Rokke and colleagues (1990) looked at the relationship between individual characteristics and credibility ratings of therapy in a group of college students. They were asked to rate the credibility of three out of nine written therapy descriptions. Women rated interpersonal therapy higher than men, and younger, single people rated activity change therapy higher than older, married people. Higher levels of neuroticism were also associated with higher ratings of credibility for self-control, cognitive, relaxation, and psychodynamic therapies. Higher extroversion scores, on the other hand, predicted lower credibility ratings for cognitive therapy and higher credibility ratings for activity-change therapy.

Few studies on treatment credibility have addressed patients' multicultural identities (Mooney et al., 2014). This is important because most psychotherapies tend to have a western bias (Koc & Kafa, 2019). Wong and colleagues (2003) investigated the credibility ratings of

Asian American students were asked to read a Cognitive therapy or a time-limited psychodynamic psychotherapy therapy description. Students with low levels of "White identity" rated cognitive therapy higher in credibility than time-limited dynamic therapy. In contrast, students with high levels of "White identity" rated the two treatments equally. The findings of Constantino and colleagues (2013), Rokke and colleagues (1990), and Wong and colleagues (2003) support the need to investigate the relationship between client characteristics and client credibility ratings in clinical samples, as credibility appears to be influenced by pre-treatment variables specific to the individual, at least in these samples.

Furthermore, research has only been conducted on clinical and undergraduate samples, and little is known about the credibility of various forms of psychotherapy in the general public's eyes, let alone how such perceptions compare to those of patients (Constantino et al., 2018). Perceptions of psychotherapy among the general public, for example, may reflect the influence of the mass media to a greater extent than patient samples, whose opinions may be founded to a greater extent on personal experience (Michalak & Heidenreich, 2018). The credibility of psychotherapy within the general population has more recently been explored by Bragesjö and colleagues (2004). In their study, the credibility rating of Psychodynamic psychotherapy, Cognitive psychotherapy (CT) and CBT in the general population in Sweden was examined. They found that CT and CBT were rated as more credible than psychodynamic among individuals who have not previously had therapy for psychological distress.

In a further study, Sandell and colleagues (2011) used cluster analysis to explore how participants divided themselves in “credibility clusters” based on their ratings of the three psychotherapy’s credibility. They found specific clusters of people within the general population that were strongly associated with different psychotherapy credibility ratings. On the one hand, some approached psychotherapy in an undifferentiated manner, tending to

either rate all psychotherapies as high or low in credibility. On the other hand, some appeared to find specific psychotherapies, CBT or PDT, as more credible. This has interesting clinical implications as it may help identify factors, such as perceptions of credibility, within certain populations that have a positive impact on psychotherapy outcome.

Rationale for the present study

When looking at the gap in the literature, only the study by Sandell and colleagues (2011) has explored and found clusters, based on credibility ratings, for different psychotherapy approaches within a general population sample. A better understanding of the credibility of psychotherapy in various groups of people is important because it may provide more accurate estimates of the 'placebo potential' of various forms of psychotherapy. It may also aid in explaining variation in outcome between different types of psychotherapy and, as a result, in allocating treatment resources. Currently, there is a paucity of research investigating treatment credibility and preference in individuals within the general population. To the author's knowledge, no study has examined treatment preference or treatment credibility for an alternative mind-body intervention such as MBCT versus a "gold standard" psychological treatment such as CBT and PDT. This study aims to explore how participants divide themselves into 'credibility clusters' based on their ratings of three forms of therapy, specifically MCBT, CBT, and PDT.

Study aims and hypotheses

The study will explore whether distinct clusters exist within the general population based on credibility ratings and how these may be related to predictors of treatment preferences of CBT, Psychodynamic and MBCT. The specific research questions were:

A. Are there clusters in the general population with regard to treatment preferences and credibility with respect to MBCT, CBT and Psychodynamic Therapy?

B. Which baseline demographic and other characteristics predict membership of the clusters?

C. Do personality traits predict cluster membership above variance accounted for by demographic variables?

Given the preliminary nature of this research, no specific hypotheses were postulated. It was hoped that this research would generate new information on factors that influence treatment credibility preference for a traditional versus alternative treatment in individuals within the general population. The findings might help identify groups that find some or all of these therapies less credible and that this could then be used as a guide for future research that could explore why this may be and what might increase the credibility of the therapies concerned and/or whether it is best to offer alternatives.

Method

Design

The study was conducted in two phases. Phase 1 involved creating and validating the therapy vignette. This took place between September 2020 and November 2020. Phase two involved creating a survey using the Qualtrics software (www.Qualtrics.com) and distributing it. This took place between December 2020 and April 2021.

Participants

Inclusion criteria were adults aged 18 years and over with the ability to understand and provide informed consent in English. Initially recruiting took place via social media. A prize draw of 3 prizes in the form of online vouchers, each worth £100, was considered suitable incentives for an online survey. However, as advertising via social media (Facebook) did not recruit enough participants, and due to the time constraints, ethical approval was granted to expand to online survey platform Prolific Academic (PA) (www.prolific.co). Prolific Academia launched in 2014 by graduate students from Oxford and Sheffield Universities as a software incubator company geared towards researchers and start-ups. The survey platform offers a UK-based and USA-based participant pool. A range of demographic details about the participant pool allows researchers to screen participants (Peer et al., 2017). Prolific was chosen as recent research carried out in the USA found participants from (PA) compared to other survey platforms such as Amazon Mechanical Turk (MTurk) and CrowdFlower (CF) were more naive and less dishonest and produced overall higher data quality (Peer et al., 2017).

Sampling

Power analysis

Power calculations for discriminant analysis are not well-established and often rely on rules of thumbs persistent in the literature (MacCallum et al., 1999). Recommendations on sample size are inconsistent in the literature with apparent limited evidence to support them (MacCallum et al., 1999). Therefore, only an a priori power analysis for research question b and c was carried out. This was done by choosing a MANOVA analysis using G*Power 3.1 (Faul et al., 2007) with a conservative estimate with f at a small effect size (0.1). In order to detect a signal a minimum sample was determined to be (N= 171). Literature guidance for k-means cluster analysis, suggest power to detect clustering is primarily dependent on cluster separation, and much less on sample size (Dalmaijer et al., 2020). They recommend 20 observations per subgroup for sufficient power to detect the presence of subgroups with k-means, provided cluster separation was =4 or greater and subgroups were roughly equal in size (Dalmaijer et al., 2020). These values also provided very good accuracy for detecting the true number of clusters, as well as very high (90-100%) classification accuracy of individual observation group membership. (Dalmaijer et al., 2020).

Of the 189 people who initiated the study online, 174 completed the final measures of which 23 were recruited via social media and 150 via Prolific. The sample were closely matched in gender with Women n= 91 (52.6%), Men n=81 (46.8%). Only 1 participant identified as other n=1 (0.6 %). See Table 1 for further demographic information. The categories for demographics were based upon the UK census categories.

Table 1.

Overview of demographic characteristics

Characteristics	**Study sample (N= 174)**
Age	Mean 33, Range 18-74
Gender	
Female	91 (52.6%)
Male	81 (46.8%)
Other	1 (0.6 %)
Ethnicity	
Black/African/Caribbean/Black British/ Any other Black Caribbean African Background	19 (10.9%)
Mixed/Multiple Ethnic Background	18 (10.3%)
Asian/Asian British	37 (21.3%)
White/White British/Any other White Background	92 (52.9%)
Other Ethnic Background	7 (4%)
Prefer not to say	1 (0.6%)
Marital status	
Married or in domestic partnership	69 (39.7%)
Divorced	9 (5.2%)
Separated	2 (1.1%)
Never married	90 (51.7%)
Prefer not to say	4 (2.3%)
Employment	
Full-time	74 (42.4%)
Part-time	30 (17.2%)
Unemployed	22 (12.6%)
Retired	13 (7.5%)
Student	32 (18.4%)
Disabled	1 (0.6%)
Prefer not to say	2 (1.1%)
Household Income	Mean £40900, range £0-£150000
Religion	
No religion	81 (46.6%)
Christian	50 (28.7%)
Muslim	20 (11.5%)
Buddhist	4 (2.3%)
Hindu	4 (2.3%)
Jewish	3 (1.7%)
Sikh	2 (1.1%)
Any other religion	2 (1.1%)
Prefer not to say	8 (4.6%)

Additional information around participants previous experience of psychotherapy, perceived helpfulness of therapy received, and preferred mode of therapy was also included. (See Table 2).

Table 2.

Overview of therapy experiences

Characteristics	**Study sample (N= 174)**
Previous experience of Psychotherapy	
Yes	56 (32.2%)
no	118 (67.8%)
Type of therapy received	
CBT	21 (12.1%)
PDT	7 (4.0%)
Mindfulness based approach	4 (2.3%)
Counselling	16 (9.2%)
Other	5 (2.9 %)
Do not know	2 (1.1%)
Prefer not to say	1 (0.6%)
Perceived Helpfulness of therapy received	
Helpful	51 (91%)
Not helpful	3 (5.3%)
Prefer not to say	2 (3.5%)
Format of therapy preferred	
Individual	147 (84.5%)
Group	6 (3.4%)
No preference	20 (11.5%)
Prefer not to say	1 (0.6%)

Most participants had no previous experiences of therapy (67.8%). Of the participants who had previous experience of therapy most received either CBT or counselling and the majority of participants found it helpful (91%).

Procedure

All participants granted informed consent prior to being able to access the online survey. They first progressed to a demographic questionnaire. Next, they were presented with the therapy vignette, which was randomly ordered to reduce order effect (Krosnick & Alwin, 1987). Next, they were asked to rank their preference for the therapy vignette they just read. Finally, they completed the measures which concluded the survey. Participants recruited via social media were offered free entry to a prize draw as a "thank you". Participants recruited via Prolific were redirected back to the prolific website to qualify for payment. It took participants an average of 12 minutes, range (6.3-67 minutes) to complete the survey. There was not a significant difference in completion time between those who undertook the study via prolific and those who completed via social media.

Psychotherapy Vignettes

Three psychotherapy vignettes describing MBCT, CBT and Psychodynamic including a group and individual treatment option for each type of intervention, were developed, as no vignettes describing the different psychotherapies have been validated for an English-speaking population. While there is no published guideline for a psychotherapy description, vignette recommendations from clinical vignette development were utilised (Spencer et al., 2015). These included: derived from the literature and/or clinical experience, be clear, well-written, and carefully edited, not be longer than necessary, typically between 50 and 500 words, and follow a similar structure and style for all vignettes (Spencer et al., 2015).

The three vignettes were created by reviewing published descriptions of the psychotherapies freely available online from the British Psychological Society (BPS) and the British Association for Counselling and Psychotherapy (BACCP) (see Table 3). They went through three rounds of validation. In the first round, five experts in the field were recruited

via Canterbury Christ Church University were asked to rate the vignettes on a 9-point Likert scale according to clarity of expression, accuracy, and comprehensiveness. Light (1971) suggested computing kappa for all coder pairs and then using the arithmetic mean of these estimates to provide an overall index of agreement for fully-crossed designs with three or more coders (Hallgren, 2012). In the first round indicated substantial agreement, $\kappa = 0.62$ (Landis & Koch, 1977). Across the vignettes, the ratings were for clarity 5.93, accuracy 5.86 and comprehensiveness 5.00. The five experts were asked to rate the vignettes again in a second round. In the second round, Kappa indicated almost perfect agreement $\kappa = 0.90$ (Landis & Koch, 1977). Across the vignettes, the ratings were for clarity 8.60, accuracy 8.26 and comprehensiveness 9.00.

Table 3.

Vignette extract examples

Cognitive-behavioural psychotherapy
What is it?
Cognitive behavioural therapy (CBT) is based on the idea that our thoughts, feelings, what we do, and how our bodies feel, are all connected. If we change one of these, we can alter all the others. CBT typically focuses on creating change by helping people change their thinking and what they do.
Aims In CBT, the therapist will develop goals with you based on what you would like to change. These goals will be specific, measurable, achievable and time-specific.
Mindfulness-Based Cognitive Therapy
What is it?
Mindfulness-based cognitive therapy (MBCT) is based on the idea that we can become unhelpfully caught up in past difficult experiences and worry about the future. MBCT aims to teach you how to be more mindful. Being mindful involves paying attention to what is happening for us right now in a gentle way. By bringing attention to the present moment, the idea is we are less likely to get stuck with past difficulties and worries about the

future. The more you are able to do this, it can help you develop a kinder and less critical relationship to yourself and your experience.

Aims
MBCT aims to help you become more mindful. This can improve your general physical and mental wellbeing.

Psychodynamic psychotherapy

What is it?
Psychodynamic Psychotherapy involves the interpretation of mental and emotional processes which can be both conscious and unconscious. The therapist will attempt to help you find patterns in your emotions, thoughts, and beliefs to gain insight into yourself. These patterns are often found to begin in your childhood, and psychological difficulties are thought to be caused by unresolved conflict.

Aims
Psychotherapy aims to help make you more aware of your mental and emotional processes. This can help reduce unresolved conflict and improve your psychological wellbeing.

The vignettes were then put through freely available readability software (https://www.webfx.com/tools/read-able/check.php), which uses various readability indices such as Flesch Kincaid reading ease, to get an average reading age for all vignettes and to make them as accessible as possible (see Table 4). The Flesch Kincaid reading ease is based on a 0-100 scale. A higher score indicates the text is easier to read. A value between 60 and 80 should be easy for a 12 to 15-year-old to understand.

Table 4.

Overview of readability scores for the three vignettes

	CBT	MBCT	PDT
First round			
Flesch Kincaid Reading Ease	37.4	35.4	40.4
Average age	20-21	20-21	19-20
Second round			
Flesch Kincaid Reading Ease	70.4	58.2	57.2
Average age	13-14	15-16	15-16

In the third round, eight people from the researchers' social media network were invited to comment on the vignettes in terms of readability. While the readability scores indicated a difference between the CBT vignette and the other vignettes there was no qualitative feedback highlighting any differences between the vignettes. (See Appendix 1 for complete vignettes).

Measures

All measures were freely available. Full copies can be found in Appendix 1.3.

Demographic Questionnaire

A demographic questionnaire was used to collect information on participants' gender, age, ethnicity, religious background, marital status, educational attainment, employment status, household income, and previous treatment experience.

HEXACO-60 (HEXAXO PI-R) (Ashton & Lee, 2009)

This questionnaire is a short personality inventory that assesses the six dimensions of the HEXACO model of personality structure with Honesty/humility, Emotionality, Agreeableness, Extraversion, Conscientiousness and Openness to Experience (Ashton & Lee, 2009). HEXACO PI-R is recommended for use in any research context in which the researcher would like to measure the major dimensions of personality but in which time constraints permit only a short inventory (Ashton & Lee, 2009). In a college sample (N = 936) and in the community sample (N = 734), demonstrated good discrimination over samples. Internal consistency reliability in the college sample ran between .77 to .80 and in the community sample between .73 and .80. Pretronzi and Masciale (2015) reported similar findings for their samples of the Cronbach alpha range between .75 and .83 (N=202). Furthermore, a relatively high convergent validity was demonstrated with correlations measured in self-report and observer reports that were above 0.50 (Ashton & Lee, 2009).

Credibility Expectancy Questionnaire (CEQ) (Devilly & Borkovec, 2000)

The CEQ is an adapted version based on the credibility measure by Borkovec and Nau (1972). The questionnaire measures treatment expectancy and credibility. 6 Items are scored with a 9-point Likert scale (0 = not all credible to 9 = very credible), with higher scores indicating greater perceived credibility of treatment. This scale is shown to have adequate reliability and validity, as well as high internal consistency within each factor and good test-retest reliability (Devilly & Borkovec, 2000; Webb et al., 2013). Later factor analysed found that the items load onto two distinct factors of credibility and expectancy, with the first three items contribute to credibility (Devilly & Borkovec, 2000; Thompson-

Hollands et al., 2014). In an adaptation used by Sandell and colleagues (2011), each psychotherapy description was rated on four dimensions: (1) Rationale, that is, how well-founded the method appeared to be; (2) Stress, that is, how psychologically and emotionally challenging the method seemed; (3) Recommendation, that is, the likelihood of recommending the method to a friend or relative, should the need arise; (4) Choice, that is, the likelihood of oneself choosing the method in question, should the need arise. As the first three items load on to credibility, we chose these to evaluate credibility and the final item to evaluate preference.

Depression, Anxiety and Stress Scale - 21 Items (DASS-21) (Lovibond & Lovibond, 1995)

This questionnaire is a collection of three self-report scales for assessing depression, anxiety, and stress. Each of the three DASS-21 scales includes seven items, which are subdivided into similar-content subscales ranging 0-3 with higher scores indicating increased difficulties on the respective scales Dysphoria, hopelessness, devaluation of life, self-deprecation, lack of interest/involvement, anhedonia, and inertia are all assessed on the depression scale. The anxiety scale measures autonomic arousal, skeletal muscle effects, situational anxiety, and subjective anxious affect experience. The stress scale is sensitive to chronic nonspecific arousal levels. It evaluates difficulty relaxing, nervous arousal, and being easily upset/agitated, irritable / overly reactive, and impatient. Scores for depression, anxiety, and stress are computed by adding the scores for each item. (Lovibond & Lovibond, 1995). The DASS-21 subscales have good validity and reliability (Henry & Crawford, 2011). The DASS-21 has been used extensively in research on mindfulness (Khoury et al., 2015).

Five-Facet Mindfulness Questionnaire-15 (FFMQ-15) (Baer et al., 2012)

The 15-item FFMQ (FFMQ-15) was developed by Baer and colleagues (2012) and measures trait mindfulness. It includes three items for each of the five-facets in the mindfulness construct: Observe, Describe, Acting with Awareness, Non-judging and Non-reactivity to inner experience. The participants are asked questions like "I notice how foods and drinks affect my thoughts, bodily sensations, and emotions". Each item is rated on a five-point likert scale with higher scores indicating increased level of trait mindfulness. The factor structure and psychometric properties of the FFMQ-15 were tested by Gu and colleagues (2016), who found that the factor structure of the FFMQ-15 was consistent with that of the FFMQ-39 with good validity and reliability. The FFQM-15 has frequently been used in both clinical and general populations to assess mindfulness (Khoury et al., 2015).

Ethics

The study was approved by a Canterbury Christ Church University ethics panel (see Appendix 2 for all ethics materials). Participants were supplied with sufficient information to offer informed consent and were provided with the option of receiving a brief report summarizing the findings of the study.

As the study was administered online, contact information for the study author was provided to participants so that should they have any concerns or wish to ask questions, they had the opportunity to do so. The data collected was made anonymous, encrypted and stored on password-protected computers during the course of the project.

Data analysis

All analyses were conducted using SPSS software, Version 26 (IBM, Armonk). Initial explorative analysis using Shapiro-Wilk normality test and quantile plots screening for outliers, skewness and kurtosis in order to determine violations to the assumption of normality. Preliminary Non-parametric correlational analysis was carried out to explore associations between treatment preferences, gender socialisation and demographic information using Spearman's correlation analysis. Following the approach by Sandell and colleagues (2011), clusters were identified using non-hierarchical cluster analysis applying the k-means method (Gore, 2000) to analyse the credibility ratings. Membership in the different clusters was analysed in relation to the CEQ measure focusing on credibility and preference. Non-parametric Kruskal-Wallis tests and non-parametric pair-wise comparison tests were used to determine if there were any statistically significant differences between the clusters in terms of the outcome measures and continuous demographic variables. For the demographic ordinal data variables, i.e., religion, ethnicity, gender non-parametric chi-square t-test for done to determine if there were any significant differences. Additional multinomial logistic analysis was carried out to examine whether variables that were found to be significant would predict the credibility or preference cluster membership.

Results

Preliminary analysis

The majority of the variables were not normally distributed, as assessed by Shapiro-Wilk's test, therefore non-parametric tests were used for descriptive statistics. Four of the six subscales of the Hexaco-60 did meet Shapiro-Wilk test of normality. All baseline variables showed a good internal consistency of $\alpha > 0.70$ (Cortina, 1993), except for FFMQ-15 with an acceptable internal consistency of $\alpha = 0.617$ (see Table 5).

Table 5.

Internal consistency (α) of all baseline measures, including subscales.

Measure	α
DASS-21	0.944
-Stress	0.900
-Anxiety	0.846
-Depression	0.903
FFMQ-15	0.617
-Describing	0.779
-Non-reactivity	0.735
-Non-judgement	0.838
-Acting with awareness	0.742
-Observing	0.756
HEXACO-60	0.814
-Honesty-Humility	0.786
-Emotionality	0.800
-Extraversion	0.846
-Agreeableness	0.746
-Conscientiousness	0.797
-Openness to Experience	0.796

Descriptive statistics for each of the measures are presented in Table 6.

Table 6.

Descriptive statistics including Median, Interquartile range, minimum and maximum values for all measures

	M	IQR	Min	Max
Hexaco-60				
Honesty/humility	3.50	3.0-4.0	1.30	5.00
Emotionality	3.30	2.80-3.70	1.60	4.50
Extraversion	2.90	2.40-3.50	1.00	4.90
Agreeableness	3.10	2.80-3.60	1.70	4.40
Conscientiousness	3.60	3.10-3.90	1.70	5.00
Openness to Experience	3.60	3.00-3.10	1.70	4.80
DASS-21				
Anxiety	2.00	1.00-4.00	1.00	5.00
Depression	1.00	1.00-3.00	1.00	5.00
Stress	3.00	1.00-4.00	1.00	5.00
FFMQ-15				
Observing	3.00	2.33-3.66	1.00	5.00
Describing	3.00	2.66-3.33	1.67	4.33
Acting with Awareness	2.66	2.33-3.33	1.00	4.67
Non-Judging	2.66	2.00-3.66	1.00	5.00
Non-Reactivity	3.00	2.33-3.66	1.00	5.00
Total	2.93	2.66-3.06	1.47	4.33

Dass-21 found a large number of participants self-reported low levels of Anxiety (45.4%), Depression (56.3 %) and Stress (32.8%). However, a significant number of participants self-reported high levels of Depression (28%), Anxiety (20.7%), and Stress (31%). Of these participants, a minority scored in the extremely high range, Depression (9.2%), Anxiety (18.4%), and Stress (17.2%). As no cut-off score is recommended for exclusion in research, these participants were included. While a range in wellbeing is expected within a general population sample, as recent surveys from the UK population have found similar or higher numbers of anxiety, depression and stress (Mental Health Foundation,

2018; Office for National Statistics, 2020) this was considered high and was considered in further analysis and implications are included in the discussion.

Research question 1

Credibility clusters

The first question explored whether there are clusters in the general population concerning treatment preference and credibility with respect to MBCT, CBT and PDT. Non-hierarchical cluster analysis applying the k-means method (Gore, 2000; SPSS 12.1) was used to analyse the CEQ scores. The k-means algorithm produces cluster means, which are nonparametric estimators of principal points. A parametric k-means approach for estimating principal points is introduced, which involves running the k-means algorithm on a very large, simulated data set from a distribution whose parameters are approximated using maximum likelihood. Solutions with clusters from k = 2 to 5 were examined until a readily interpretable solution with three clusters was attained (Dalmaijer et al., 2020). The profiles of each of these clusters across the three clustering variables are shown in Figure 1.

As shown in Figure 1, participants in the first cluster rated all three forms of therapy about the same in terms of credibility. They rated them all as relatively high in credibility (i.e. overall credibility ratings above 7 on the 9-point Likert scale). This was the largest cluster comprising 47% (n=82) of the participants. Hence this cluster was named the 'Optimistic' cluster. Participants in the second cluster rated MBCT (7.5), closely followed by CBT (6.39), as more credible than PDT (3.71). Hence, this was named the “MBCT & CBT” cluster. The cluster contained 27% of participants (n= 47). Participants in the third cluster rated all three forms of psychotherapy about the same in terms of credibility. They rated them all relatively low in credibility (i.e., credibility ratings at 5 or lower on the 9-point Likert scale). Therefore,

this was named the “Pessimistic” cluster. This was the smallest cluster containing 26 % of participants (n=45).

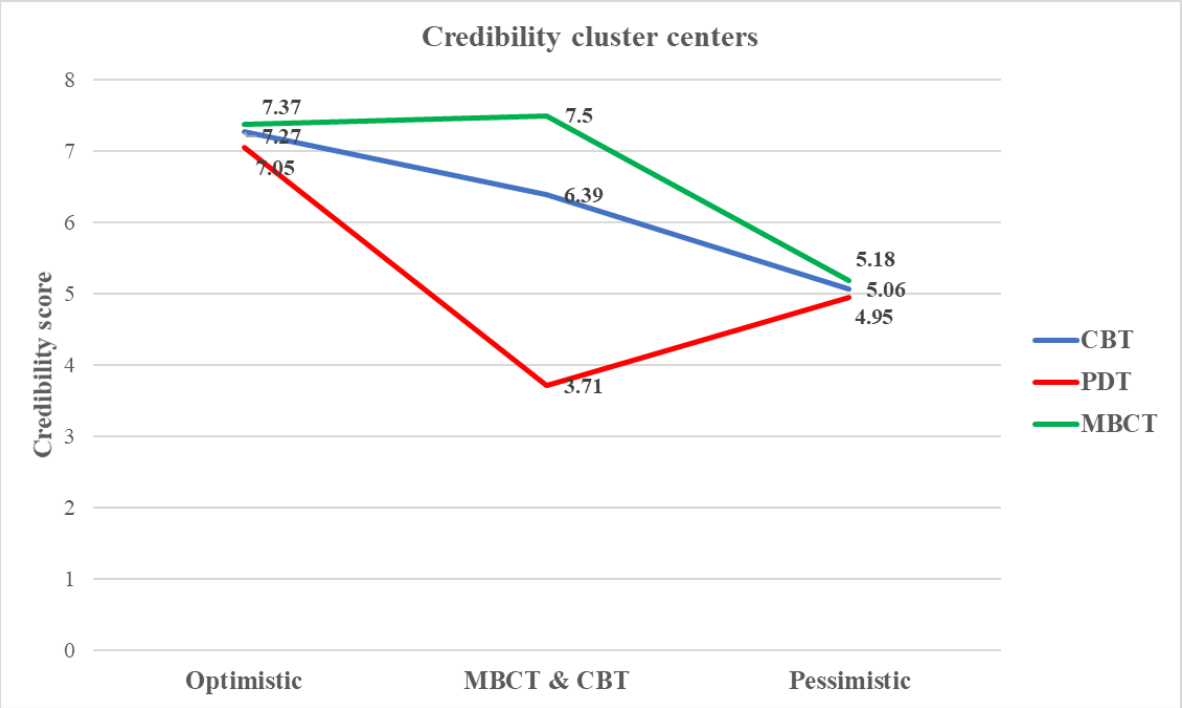

Figure 1.

Mean profiles of each of the three credibility clusters

Preference clusters

Solutions with preference clusters from k = 2 to 5 were examined until a readily interpretable solution with four clusters was attained (Dalmaijer et al., 2020). The profiles of each of these clusters across the four clustering variables are shown in Figure 2.

As can be seen from Figure 2, participants in the first cluster rated all three forms of therapy about the same. They rated them all relatively low in preference (i.e., overall preference ratings 3 or below on the 9-point Likert scale). This was the smallest cluster comprising 11% (n=20) of the participants. Hence this cluster was named the 'Prefer none' cluster. Participants in the second cluster preferred PDT (7.3), followed by CBT (5.75) and MBCT (3.18), which was the least preferred. Hence, this cluster was named the “Prefer PDT” cluster. The cluster was the second-largest cluster containing 35 % of participants (n=61).

Participants in the third cluster preferred CBT (7.12), closely followed by MCBT (6.77) and with a larger gap PDT (3.73), which was the least preferred. Hence, this cluster was named "Prefer CBT & MBCT". The cluster contained 15% of participants (n= 26). Participants in the fourth cluster rated all three forms of therapy about the same in terms of preference. They rated them all relatively high in preference (i.e., overall preference ratings 7 or above on the 9-point Likert scale). Hence, this cluster was named the "Prefer all" cluster. This was the largest cluster containing 38 % of participants (n=67).

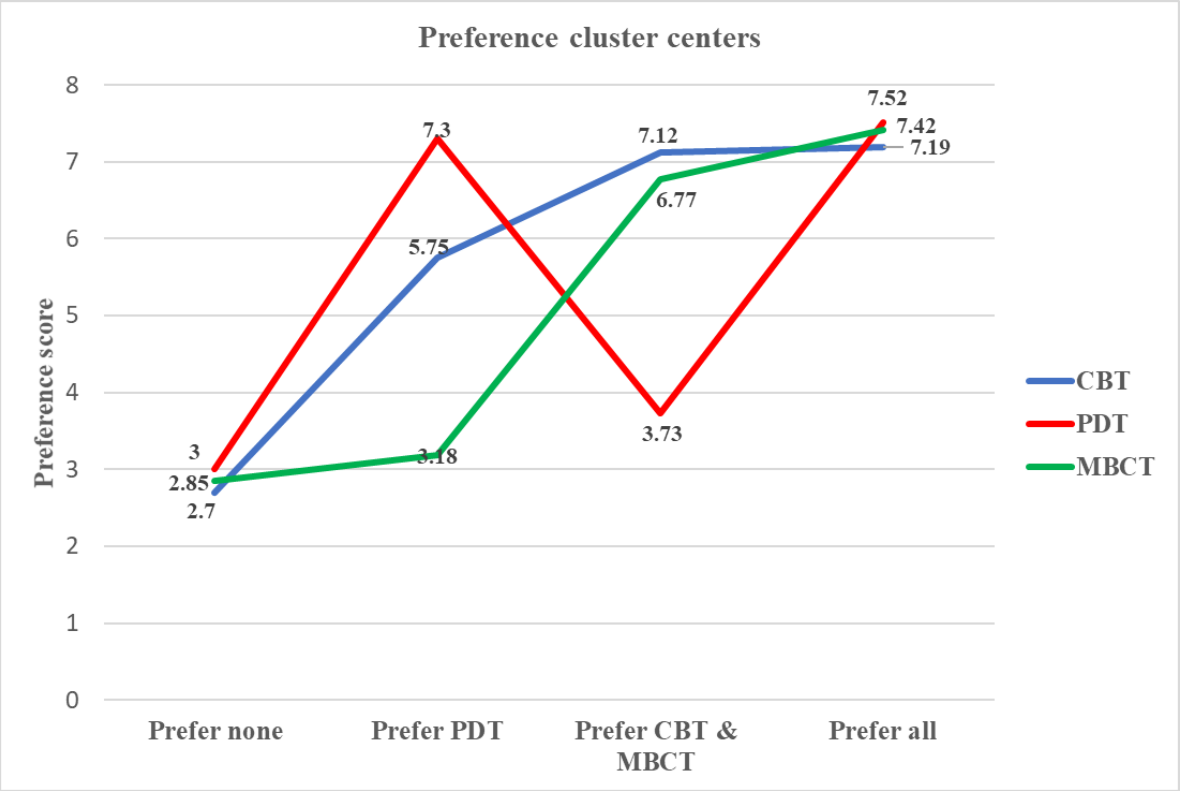

Figure 2.

Mean profiles of each of the four preference clusters

Research question 2

The second question explored whether baseline demographic and other characteristics predicted membership of the clusters.

Self-report measures

First Spearman's correlation was carried out to explore the relationship between the self-report measures. Secondly non-parametric Kruskal-Wallis tests and Chi-Square test for independence were used to examine whether any variables were individually associated with preference clusters or credibility clusters (see Table 8-11). As a precaution the DASS-21 subscales were analysed with and without the participants who scored in the extremely high range. No significant difference was found and therefore the participants were retained in further analysis.

Table 7.

Spearman's correlations between measures (n=174)

		DASS-21			HEXACO-60						FFMQ-15	CEQ		
		Anxiety	Depression	Stress	Honesty/humility	Emotionality	Extraversion	Agreeableness	Conscientiousness	Openness to Experience	Total	CBT	PDT	MBCT
DASS-21														
Anxiety	Correlation													
	Sig.													
Depression	Correlation	.507**												
	Sig.	.000												
Stress	Correlation	.686**	.639**											
	Sig.	.000	.000											
HEXOCA-60														
Honesty/Humility	Correlation	-.296**	-.176*	-.175*										
	Sig.	.000	.020	.021										
	Correlation	.289**	.196**	.359**	-.053									
Emotionality	Sig.	.000	.009	.000	.484									
	Correlation	-.320**	-.435**	-.354**	.129	-.170*								
Extraversion	Sig.	.000	.000	.000	.090	.025								
	Correlation	-.234**	-.185*	-.265**	.291**	-.257**	.173*							
Agreeableness	Sig.	.002	.014	.000	.000	.001	.022							
	Correlation	-.188*	-.190*	-.106	.407**	-.037	.167*	.030						
Conscientiousness	Sig.	.013	.012	.163	.000	.631	.027	.690						
	Correlation	-.082	-.078	-.044	.111	-.139	.149*	.172*	.177*					
OpennesstoExperience	Sig.	.281	.306	.567	.145	.068	.049	.023	.019					
FFMQ-15														
Total	Correlation	-.414**	-.444**	-.433**	.212**	-.301**	.542**	.109	.321	.217**				
	Sig.	.000	.000	.000	.000	.000	.000	.152	.000	.00				
CEQ														
CBT	Correlation	.141	.013	.256**	-.012	.114	-.004	-.027	-.038	.056	-0.063			
	Sig.	.063	.864	.001	.875	.133	.956	.720	.622	.461	0.406			
PDT	Correlation	.183*	.175*	.352**	-.096	.230**	.028	.011	-.155*	.040	-.159*	.514**		
	Sig.	.016	.021	.000	.209	.002	.714	.890	.041	.598	0.036	.000		
MBCT	Correlation	.077	.066	.129	-.041	.062	-.032	.016	-.045	.076	-0.047	.469**	.239**	
	Sig.	.310	.388	.090	.590	.413	.678	.836	.555	.316	0.535	.000	.001	

*p<.05, ** p<.01

As seen in Table 7. FFMQ-15 was negatively correlated with DASS-21 indicating people who scored higher on trait mindfulness experienced lower levels of stress, anxiety, and depression. A positive correlation was found between the DASS-21 subscale anxiety and stress and the adapted CEQ. Participants who rated CBT higher in credibility reported higher levels of stress. Likewise, participants who rated PDT higher in credibility reported higher anxiety, stress and depression (see Table 7).

Five of the Hexaco-60 subscales were correlated with anxiety, depression, and stress levels. Specifically, people who scored high on honesty/humility, extraversion, and agreeableness were more likely to score low on depression, stress and anxiety. Similarly, FFMQ-15 was negatively correlated with the emotionality subscale. Participants who scored high on trait mindfulness were more likely to score low on emotionality. FFMQ-15 was positively correlated with the honesty/humility and extraversion subscale. Participants who scored high on trait mindfulness were more likely to score high on the honesty/humility and extraversion subscale. In contrast, emotionality was positively correlated with anxiety, depression and stress levels indicating people who scored high on emotionality subscales were more likely to score high on the depression, anxiety, and stress subscales. While most of the correlation coefficients were weak between 0.1 to 0.3 and -0.1 to 0.3, some were moderate 0.3 to 0.5 and -0.3 to -0.5 correlated (Andy Field, 2007).

Credibility cluster analysis

The Chi-square test for independence found there was a significant difference in gender ($p=0.013$) between credibility clusters (see Table 8).

Table 8.

Chi-square test of independence for credibility clusters

		Optimistic	**MBCT & CBT**	**Pessimistic**		
		Count	Count	Count	$\chi 2$ (df)	Asym. Sig
Gender	Male	30 (37%)	22 (47%)	29 (64%)	8.727 (2)	0.013*
	Female	51 (63%)	25 (53%)	16 (36%)		
	Other					
Ethnicity	Black/African/Caribbean/Black British/Any Other Black Caribbean African Background	8 (9.8%)	6 (13%)	5 (11%)	11.256 (10)	0.301
	Mixed/Multiple Ethnic Background	9 (11%)	7 (15%)	2 (4%)		
	Asian/Asian British	15 (18 %)	7 (15%)	15 (33%)		
	White/White British/Any Other White Background	47 (57%)	25 (53%)	20 (44%)		
	Other Ethnic Background	3 (4 %)	1 (2%)	3 (7%)		
Religion	No religion	38 (46%)	24 (51%)	19 (42%)	7.935 (6)	0.243
	Christian	27 (33%)	13 (28%)	10 (22%)		
	Muslim	7 (9%)	3 (6%)	10 (22%)		
	Other	10 (12%)	7 915%)	6 (13%)		
Marital Status	Married	41 (50%)	14 (30%)	14 (31%)	7.37 (8)	0.117
	Never married	34 (42%)	29 (62%)	27 (60%)		
	Other	7 (8%)	4 ((%)	4 (9%)		
Employment	Employed	53 (65%)	28 (60%)	23 (51 %)	2.211 (2)	0.326
	Other	29 (35%)	19 (40%)	22 (49%)		

Previous experience of therapy	Yes	29 (35%)	16 (34%)	11 (24%)	1.69 (2)	0.43
	No	53 (65%)	31 (66%)	34 (76%)		
Therapy received	CBT	9 (11%)	6 (13%)	6 (13%)	3.096 (6)	0.806
	Counselling	10 (12%)	6 (13%)	3 (7%)		
	Other	11 (13%)	4 (8%)	3 (7%)		
	No previous therapy	52 (63%)	31 (66%)	33 (73%)		
Perceived helpfulness of therapy	Helpful	21 (26%)	9 (19%)	11 (24%)	6.203 (4)	0.186
	Not helpful	7 (8%)	6 (13%)	0		
	Not applicable	54 (66%)	32 (68%)	34 (76%)		
Format Of therapy preference	Individual	70 (85%)	41 (87%)	36 980%)	4.756 (6)	0.594
	Group	2 (2%)	1 (2%)	3 (7%)		
	No preference	10 (12%)	4 (9%)	6 (13%)		

* p<.05, ** p<.01

Post-hoc analysis using adjusted residuals was carried out to identify the significant differences within the chi-square test. The post-hoc analysis found men were more likely than women to belong to the Pessimistic cluster.

As can be seen in Table 9. for the measures the Kruskal-Wallis test found stress ($p<0.001$) and trait mindfulness ($p=0.038$) significantly different between the credibility clusters.

Table 9.

Kruskal-Wallis test of variables to determine significant differences between credibility cluster.

	Optimistic	**MBCT & CBT**	**Pessimistic**			
Variable	**median (IQR)**	**Median (IQR)**	**Median (IQR)**	**df**	**H**	**Asymp Sig.**
DASS-21						
Anxiety	2.5 (1.00-4.25)	1.00(1.00-3.00)	2.00(1.00-4.00)	2	4.868	0.088
Depression	1.00(1.00-4.00)	1.00(1.00-2.00)	1.00(1.00-3.00)	1	3.732	0.155
Stress	3.00(2.00-4.00)	2.00(1.00-3.00)	2.00(1.00-3.00)	3	17.659	.000**
FFMQ-15						
Total score	3.20(2.87-3.67)	3.07(2.67-3.47)	2.93(2.63-3.30)	2	6.567	0.038*
Age	32.00(26.00-39.00)	28.00(22.00-39.00)	30.00(21.00-36.75)	2	3.633	0.163
Household income (£)	36.000(20.000-52.000)	40.000 (23.500-57.000)	30.000 (15.000-58.750)	2	2.013	0.365

* p<.05, ** p<.01

Pairwise comparisons with Bonferroni corrections for multiple tests were carried out to determine differences between the credibility clusters. Trait mindfulness was significantly different between clusters. Participants with higher trait mindfulness were more likely to belong to the Optimistic cluster than the Pessimistic cluster (p=.041). Similarly there was a

significant difference in reported stress levels between the clusters. Participants in the Optimistic cluster experienced higher levels of stress compared to the MBCT & CBT cluster (p= .001) and the Pessimistic cluster (p= .002).

Independent variables that had a significant relationship with the credibility clusters or preference clusters at $p<0.05$ were retained for inclusion in additional multinomial logistic regression analysis. Multinomial logistic regression is a straightforward extension of binary logistic regression that allows for more than two dependent or outcome variable categories. Like binary logistic regression, multinomial logistic regression employs maximum likelihood estimation to assess the likelihood of categorical membership. It is also more robust to violations of assumptions of multi-variate normality and can manage unordered categories (Tabanick & Fidell, 2019). Therefore, it was chosen as there were three dependent variables (the three clusters) and the values on the dependent variable represent unordered categories. Multinominal logistic regression was conducted to determine if the variables found to be significantly different between groups predicted cluster membership

Credibility cluster predictor analysis

For credibility clusters, gender, FFMQ-15 total score and stress were significantly different between clusters and were chosen for the predictor analysis. This revealed significant predictors of cluster membership. Overall model fitting information described the relationship between the dependent and independent variables. It revealed the probability of the model chi-square 31.354 was 0.000, less than the level of the significance of 0.05, indicating a good fit.

Table 10.

Parameter estimates for the multinomial logistic regression analysis for credibility clusters

	Reference category- Pessimistic cluster					
	B	**Std. Error**	**df**	**Sig.**	**Exp(B)**	**95% CI**
Optimistic cluster						
Stress	0.428	0.143	1	0.003*	1.535	1.159-2.031
FFMQ-15 Total score	0.970	0.375	1	0.01*	2.637	1.265-5.497
[Gender=1]	-1.078	0.409	1	0.008*	0.34	0.152-0.759
MBCT & CBT cluster						
Stress	-0.014	0.157	1	0.93	0.986	0.725-1.342
FFMQ-15 Total score	0.433	0.394	1	0.272	1.542	0.713-3.335
[Gender=1]	-0.772	0.432	1	0.074	0.462	0.198-1.079

CI=Clinical intervals
* p<.05, ** p<.01

As can be seen in Table 10 gender, stress and trait mindfulness were found to be predictive of cluster membership. Participants with high levels of stress (b= .428, s.e. .143, p <.01) were more likely to find all psychotherapies credible and belong to the Optimistic cluster relative to the pessimistic category. Men were significantly less likely than women to find all psychotherapies credible and (b= -.1.078, s.e. =.409, p <.01) and belong to the Optimistic cluster relative to the pessimistic category.

Additionally, participants who reported higher trait mindfulness (b= .970, s.e. .375, p <.01) were more likely to belong to the Optimistic cluster relative to the pessimistic category.

Preference cluster analysis

Non-parametric Kruskal-Wallis tests and Chi-Square test for independence were used to examine whether any variables were individually associated with preference clusters. As can be seen in Table 11 the Chi-square test for independence found there was a significant difference in gender (p=0.012) between preference clusters.

Table 11.

Chi-square test of independence for preference clusters

		Prefers none	PDT preference	CBT & MBCT preference	Prefers all		
		Count	**Count**	**Count**	**Count**	**χ2 (df)**	**Asym. Sig.**
Gender	Male	15 (75%)	30 (49%)	13 (52%)	23 (34%)	10.983 (3)	0.012*
	Female	5 (25%)	31 (51%)	12 (48%)	44 (66%)		
Ethnicity	Black/African/Caribbean/Black British/Any Other Black Caribbean African Background	4 (20%)	4 (7%)	2 (8%)	9 (13%)	15.232 (15)	0.394
	Mixed/Multiple Ethnic Background	2 (10%)	8 (13%)	3 (12%)	5 (8%)		
	Asian/Asian British	5 (25%)	15 (25%)	5 (19%)	12 (18%)		
	White/White British/Any Other White Background	9 (45%)	32 (53%)	12 (46%)	39 (58%)		
	Other Ethnic Background	0	1 (2%)	4 (15%)	2 (3%)		
Religion	No religion	10 (50%)	32 (33%)	12 (46%)	27 (40%)	16.564(9)	0.054
	Christian	5 (25%)	13 (21%)	5 (19%)	27 (40%)		
	Muslim	4 (20%)	4 (7%)	3 (12%)	9 (13%)		
	Other	1 (5%)	12 920%)	6 (23%)	4 (6%)		
Marital Status	married	6 (30%)	20 (33%)	13 (50%)	30 (45%)	9.917 (6)	0.128
	never married	14 (70%)	36 (59%)	12 (46%)	28 (42%)		
	other	0	5 (8%)	1 (4%)	9 (13%)		
Employment	Employed	9 (45%)	36 (59%)	13 (50%)	46 (69%)	5.062 (3)	0.169
	Other	11 (55%)	25 (41%)	13 (50%)	21 (31%)		

Previous experience of therapy	Yes	6 (30%)	21 (34%)	7 (27%)	22 (33%)	0.527 (3)	0.913
	No	14 (70%)	40 (66%)	19 (73%)	45 (67%)		
Therapy received	CBT	4 (20%)	7 (12%)	2 (8%)	8 (12%)	4.973(9)	0.862
	Counselling	2 (10%)	7 (11%)	1 (4%)	9 (13%)		
	other	1 (5%)	7 (11%0	4 (15%)	6 (9%)		
	no previous therapy	13 (65%)	40 (66%)	19 (73%)	44 (66%)		
Perceived helpfulness of therapy	Helpful	5 (25%)	12 (20%)	7 (27%)	17 (25%)	5.631 (6)	0.472
	Not helpful	1 (5%)	8 (13%)	0	4 (6%)		
	Not applicable	14 (70%)	41 (67%)	19 (73%)	46 (69%)		
Format of therapy preference	Individual	15 (75%)	55 (90%)	21 (81%)	56 (84%)	9.772 (9)	0.305
	Group	1 (5%)	1 (2%)	0	4 (6%)		
	No preference	4 (20%)	4 (7%)	5 (19%)	7 (10%)		

* p<.05, ** p<.01

Post-hoc analysis found marginally significant differences within the chi-square test with Bonferroni adjusted alpha value (p= 0.00625). Gender was marginally significant (p=0.0069) with men being more like to not prefer any of the psychotherapies and belong to the "prefers none" cluster compared to the "Prefer all" cluster.

As can be seen in Table 12. for the measures the Kruskal-Wallis test found stress (p=0.049) and trait mindfulness (p=0.002) were significantly different between the preference clusters.

Table 12.

Kruskal-Wallis test of variables to determine significant differences between preference clusters

	Prefers none	**PDT**	**CBT & MBCT**	**Prefers all**			
Variable	**Median (IQR)**	**Median (IQR)**	**Median (IQR)**	**Median (IQR)**	**df**	**H**	**Asymp Sig.**
DASS-21							
Anxiety	2.00(1.00-4.00)	2.00 (1.00-3.00)	2.00 (1.00-4.00)	2.00 (1.00-5.00)	3	1.209	0.751
Depression	1.00(1.00-3.00)	1.00 (1.00-3.00)	1.00 (1.00-2.50)	1.00 (1.00-4.00)	3	3.536	0.316
Stress	1.00(1.00-3.00)	2.00 (1.00-3.00)	3.00 (1.00-4.00)	3.00 (2.00-4.00)	3	7.87	0.049*
FFMQ-15							
Total score	2.93 (2.74-3.13)	3.07 (2.67-3.40)	2.90(2.58-3.41)	3.30 (2.87-3.80)	3	14.556	0.002*
Age	30.00 (24.00-37.00)	28.00 (22.00-36.00)	29.00 (20.50-33.00)	34.00 (28.00-41.00)	3	9.783	0.021*
Household income	30.000 (15.000-60.000)	39.000 (22.000-50.000)	40.000 (15.000-65.000)	35.000 (20.000-50.000)	3	0.38	0.944

* p<.05, ** p<.01

Pairwise comparison with Bonferroni corrections found participants who reported higher levels of trait mindfulness were more likely to belong to the "Prefer all" cluster compared to all other clusters. No significant differences were found between stress, age and the preference clusters.

For preference clusters, variables that reached significance were chosen for the predictor analysis. Overall model fitting information described the relationship between the dependent and independent variables. It revealed the probability of the model chi-square 41.210 was 0.00, less than the level of the significance of 0.05, indicating a good fit.

Table 13.

Parameter estimates for the multinomial logistic regression analysis for preference clusters

	Reference category- Prefer none cluster					
	B	**Std. Error**	**df**	**Sig.**	**Exp(B)**	**95% CI**
Prefer PDT cluster						
Stress Level	0.105	0.198	1	0.595	1.111	0.754-1.637
FFMQ-15 total score	0.79	0.539	1	0.143	2.203	0.766-6.332
Age	-0.011	0.022	1	0.637	0.989	0.947-1.034
[Gender=1]	-1.295	0.619	1	0.036*	0.274	0.081-0.922
Prefer CBT & MBCT cluster						
Stress Level	0.191	0.223	1	0.391	1.21	0.783-1.872
FFMQ-15 total score	0.281	0.611	1	0.645	1.325	0.400-4.389
Age	-0.014	0.027	1	0.594	0.986	0.935-1.039
[Gender=1]	-1.117	0.697	1	0.109	0.327	0.084-1.282
Prefer all cluster						
Stress Level	0.421	0.204	1	0.039**	1.523	1.022-2.270
FFMQ-15 total score	1.715	0.564	1	0.002**	5.556	1.840-16.777
Age	0.019	0.023	1	0.394	1.019	0.975-1.065
[Gender=1]	-1.762	0.636	1	0.006**	0.172	0.049-0.597

CI=Clinical intervals
* p<.05, ** p<.01

As can be seen in Table 13 gender, stress and trait mindfulness were significant predictors of cluster membership. Men were significantly less likely to be part of the "prefer

PDT" cluster ((b= -.1.295, s.e. =.619, p=.036), and the "Prefer all" cluster (b= -1.762, s.e. =.636, p=.0006) relative to the "Prefer none" category. Participants who reported high trait mindfulness were more likely to belong to the "Prefer all" cluster (b= 1.715, s.e. = .564, p= .0002) relative to the "Prefer none" category. Similarly, participants who reported high levels of stress were more likely to belong to the "Prefer all" cluster (b= 0.421, s.e.=0.204, p= 0.039) relative to the "prefer none" category.

Research question 3

The third research question explored whether personality traits predicted cluster membership. Non-parametric Kruskal-Wallis tests and Chi-Square test for independence were used to examine whether any of the personality subscales were individually associated with preference or credibility clusters.

As shown in Table 14 participants with higher emotionality scores were more likely to belong to the Optimistic cluster than the "Pessimistic" cluster.

Table 14.

Kruskal-Wallis test of variables to determine significant differences between credibility clusters

	Optimistic	MBCT & CBT	Pessimistic			
Variable	**Median (IQR)**	**Median (IQR)**	**Median (IQR)**	**df**	**H**	**Asymp Sig.**
HEXACO-60						
Honesty/Humility	3.40 (3.00-3.95)	3.50 (3.15-4.15)	3.50 (2.92-3.87)	2	1.778	0.411
Emotionality	3.50(2.95-3.95)	3.00 (2.40-3.40)	3.25 (2.80-3.70)	2	10.986	0.04
Extraversion	2.90 (2.35-3.60)	2.90 (2.40-3.30)	3.00 (2.52-3.50)	2	1.693	0.429
Agreeableness	3.10 (2.70-3.70)	3.20 (2.90-3.60)	3.10 (2.72-3.60)	2	0.743	0.69

Conscientiousness	3.50 (3.10-4.00)	3.70 (3.20-4.00)	3.65 (3.02-3.87)	2	1.776	0.411
Openness To Experience	3.60 (3.20-4.10)	3.50 (2.95-4.15)	3.35 (2.90-3.97)	2	2.923	0.232

* p<.05, ** p<.01

Pairwise comparison with Bonferroni corrections found participants with high emotionality scores were more likely to belong to the "Optimistic" cluster compared to the "MBCT & CBT" cluster (p=0.003).

Table 15.

Kruskal-Wallis test of variables to determine significant differences between preference clusters

	Prefers none	**PDT**	**CBT & MBCT**	**Prefers all**			
Variable	**Median (IQR)**	**Median (IQR)**	**Median (IQR)**	**Median (IQR)**	**df**	**H**	**Asymp Sig.**
HEXACO-60							
Honesty/Humility	3.40 (2.60-3.70)	3.50 (3.10-4.00)	3.70 (3.45-4.20)	3.40 (3.00-3.90)	3	4.117	0.249
Emotionality	3.10 (2.70-3.60)	3.20 (2.60-3.70)	3.20 (2.80-3.75)	3.40 (3.00-3.80)	3	5.795	0.122
Extraversion	2.90 (2.40-3.50)	2.80 (2.40-3.50)	3.10 (2.45-3.55)	2.90 (2.40-3.80)	3	2.437	0.487
Agreeableness	2.90 (2.50 -3.60)	3.10 (2.90-3.60)	3.20 (2.75-3.70)	3.20 (2.70-3.70)	3	3.527	0.317
Conscientiousness	3.60 (3.30-3.90)	3.60 (3.20-4.10)	3.70 (3.05-3.85)	3.40 (3.00-3.90)	3	4.488	0.213
Openness To Experience	2.90 (2.60-4.00)	3.60 (3.10-4.20)	3.70 (2.95-4.00)	3.60 (3.00-4.00)	3	2.815	0.421

* p<.05, ** p<.01

As shown in Table 15 none of the personality subscales were significantly related to preference clusters.

Discussion

The present study aimed to explore whether distinct preference and credibility clusters for three different psychotherapies would appear within a general population sample. A key finding was that distinct clusters could be identified based on their credibility and preference ratings of the three types of psychotherapy. For the credibility clusters, on the one hand, some approached psychotherapy in a relatively undifferentiated manner, tending to either rate all psychotherapies as highly credible "the Optimistic cluster" or rate all psychotherapies as low in credibility "the Pessimistic cluster". On the other hand, some appeared to constitute distinct 'market segments' and perceived particular methods, MBCT and CBT, as more credible than PDT, "the MBCT & CBT cluster".

A similar trend was found in preference clusters regarding participants either preferring all psychotherapies the "Prefer all" cluster or preferring no psychotherapies "Prefer none" cluster. In contrast to the credibility clusters, two preference clusters emerged. One cluster similar to the credibility clusters preferred CBT and MBCT, the "CBT & MBCT" cluster, whereas an additional cluster preferred PDT over CBT and MBCT the "PDT" cluster. These results are like Sandell and colleagues (2011) findings. They found clusters within the general population in Sweden across similar subgroupings for credibility and preference. Similarly, the optimistic preference and credibility clusters were the largest, and the pessimistic credibility and preference clusters were the smallest. The present study in addition found clusters between psychotherapies previously not compared i.e., MBCT.

Of interest is the difference between the credibility and preference clusters, where a larger number of participants preferred PDT. In contrast, fewer participants found PDT credible in comparison to MBCT, which a smaller number of participants preferred but larger number of participants found credible. Previous credibility research found participants rated

CBT higher in credibility than PDT (Wong et al., 2003). One explanation may be the positive media coverage of CBT may have an influence. Another may be that CBT is more easily explained and understood than PDT, and the description of the psychotherapy could have influenced participants. In terms of the MBCT credibility cluster, comparisons with the literature indicate that the current findings are broadly consistent with previous research on clinical samples in the United States and the United Kingdom, which found that cognitive and cognitive-behavioural types of psychotherapy appear more credible to people than psychodynamic psychotherapy (Bragesjö et al., 2004; Hardy et al., 1995; Pistrang & Barker, 1992; Rokke et al., 1990; Wanigaratne & Barker, 1995).

Although there is no evidence that the prevalence estimates of psychological disorders have risen in tandem with the significant cultural and economic changes that have occurred in Western societies over the last decades, some indicators, such as an increase in service use, an increase in self-reported psychological distress, and a decrease in psychological wellbeing, indicate that mental health issues are psychosocial (Michalak & Heidenreich, 2018). As these mental health issues are frequently discussed in the context of current society's failings, MBIs that offer a more fundamental alternative to the current lifestyle may be appealing (Michalak & Heindenreich, 2018). This therefore may make MBIs more appealing to some people in the healthcare system. Another significant distinction is that, compared to most standard psychotherapies, where the physical body plays only a minor role, most mindfulness practises taught in MBIs (such as body scan and breathing meditation) are body oriented. MBIs can thus capitalise on these needs and new psychological developments (Khoury et al., 2017a; Khoury et al., 2017b; Michalak et al., 2020).

Predictors of cluster membership

Certain dispositional characteristics, gender, stress and trait mindfulness were predictors of credibility cluster membership. Men were more likely than women to find all psychotherapies of relatively low credibility. Similarly, men were more like than women to not prefer any of the psychotherapies. While there is evidence indicating men and women tend to have different preferences for psychotherapy (Churchill et al., 2010; Pretronzi & Masciale, 2015), there is limited research exploring dispositional characteristics and credibility. A single previous study found women rated interpersonal therapy as more credible than men (Rokke et al., 1990). According to ongoing research men's reluctance to seek mental health help is suggested to be in part influenced by gender socialisation; however, far less is known about factors promoting men's mental health help-seeking behaviours than barriers to men's help-seeking behaviours (Addis & Mahalik, 2003; Cole et al., 2018; O'Neil, 2008).

Participants with high levels of stress were more likely to find all psychotherapies credible. Previous research within clinical populations found severe global and specific (i.e., depression) baseline symptom severity related to lower credibility perceptions (Cohen et al., 2015; Constantino et al., 2014). It may be stress was a more prevalent experience in the sample compared to anxiety and depression. While general wellbeing and credibility of psychotherapy have not previously been researched within the general population, it may be participants held a more positive view of psychotherapies in general, and symptom severity may not have been as severe. Cognitive theories of depression have highlighted the role of pessimism in being a potential risk factor for depressive symptoms (Robins & Hayes, 1995).

Similarly, to the high level of stress, participants with high trait mindfulness were more likely to find all psychotherapies credible. Although stress, anxiety, and depression were negatively correlated with trait mindfulness, participants within the "optimistic" and

"Prefer all" clusters while experiencing higher levels of stress also reported high trait mindfulness, which potentially influenced their perception of credibility positively. Researchers have suggested higher trait mindfulness has a positive impact on psychological wellbeing within the general population (Tomlinson et al., 2018).

In terms of personality, the initial non-parametric analysis indicated emotionality was significantly different between credibility clusters. Previous research has demonstrated some overlapping results that openness predicts psychodynamic preference, and that agreeableness is correlated with a preference of cognitive-behavioural orientation (Holler, 2007; Ogunfowora & Drapeau, 2008; Scandell et al., 1997). It may be the findings of the present study were a result of experimental limitations, such as the study was underpowered to detect differences. It may also be the inclusion of a different psychotherapy, MBCT, influenced the findings. Other researchers have suggested that there may be a different pattern of association between personality traits and preference for different psychotherapies across different populations (Pretronzi & Masciale, 2015).

Limitations

The study suffered from a number of additional limitations. First, the study relied solely on subjective measures. The mental health measure, DASS-21, highlighted a significant minority of participants rated in the extremely severe range for stress, anxiety and depression. While this did not significantly influence further analysis, and research studies have found the ratings were not sensitive or specific enough to predict a clinical level of mental health difficulties, it is important to consider the implications (Beaufort et al., 2017). As this study was carried out during a national lockdown resulting from the COVID-19 pandemic, recent research suggests this has significantly impacted the level of stress, anxiety and depression within the general population (Salari et al., 2020). Therefore, it follows

participants may have been impacted as well. Alternatively, people who were experiencing higher levels of stress, anxiety and depression were drawn to participate.

While the vignettes went through several rounds of validation, including evaluating readability, it may be the way the therapies were described influenced participants in particular ways. Furthermore, while 32 % of the sample had previous therapy experience, and of those, 91% had found it helpful, the present study did not find a significant interaction between previous experience and the other measures. However, nevertheless, it may have influenced their reactions to the vignettes. Furthermore, the readability of the vignettes could act as a barrier to adults with limited literacy skills in particular as according to an Organisation for Economic Co-operation and Development (OECD) skills survey report, 16.4 % of adults in England can be described as having poor literacy skills (OECD, 2016).

Secondly, the study initially relied on a convenience sample of participants. However, due to poor uptake and poor quality of data, a more representative sample via Prolific was collected. However, the Prolific sample was underrepresented of older minority ethnic individuals. There may also be an overrepresentation of more responsive and agentic individuals (as participants needed to respond to the Prolific advert or e-mail proactively). Additionally, using an online survey can potentially exclude specific populations, such as adults with no access to the internet or unable to access the internet. However, due to the research time frame, it was not deemed practical and financially feasible to use other sampling methods such as going out into the community to reach the populations described above. Therefore, the findings should be generalised with caution.

Finally, these findings were restricted to individual counselling and psychotherapy in the United States and the United Kingdom, both Western, developed countries. Furthermore, as the study was observational, it did not enable us to determine a causal relationship between

credibility ratings and other baseline measures. Therefore, further longitudinal studies could address this issue.

Clinical Implications

Currently NHS policy and NICE guidelines highlight the importance of providing individualised care including considering preference (NICE,2011). According to NICE guidelines (2011), people receiving mental healthcare should participate in shared decision making and develop a care plan with mental health and social care practitioners. While CBT is the predominant recommended therapy within the NHS, PDT and MBCT also have a good evidence base and are recommended by NICE guidelines (2011) for certain mental health difficulties. While there may be limited availability of certain types of evidence-based therapy by taking clients preferences into consideration and potentially adjusting treatment to accommodate this could have an improvement on treatment outcome (Swift et al., 2010).

Only recently has treatment credibility received more attention as a pantheoretical predictor of client improvement (Constantino et al., 2018). Participants' treatment credibility belief is an evidenced-based predictor of treatment outcome that therapists would be wise to assess throughout treatment, attempt to heighten at the start of treatment, match to intervention style responsively, and respond to sensitively if/when it wanes.

To the best of our knowledge, MBCT preferences or credibility ratings compared to other psychotherapies have not been investigated within the general population. Given that there are credibility and preference clusters, and given that credibility predicts outcome, services need to offer a choice of modalities. Regarding the predictors, it may be important for therapists to check out people's and particularly men's perceptions of credibility, as they are more likely to be in the pessimism cluster. As this is an exploratory study, the results should be treated with caution unless and until replication.

Future research

The researchers propose it would be helpful to have an updated sense of what therapy credibility clusters there appears to be within a UK sample and what predicts the membership of these clusters. For example, the clusters identified in the current study suggests men were less likely to prefer or rate all psychotherapies as credible. This could then be used as a guide for future research that could explore why this may be and what might increase the credibility of the therapies concerned and/or whether it is best to offer alternatives.

Conclusion

This is the first study to the author's knowledge to investigate preference and credibility comparing MBCT to other psychotherapies such as CBT and PDT. It is also the first study to explore whether psychotherapy preference and credibility clusters exist within the general population in the UK. Similarly, to Sandell and colleagues (2011), we found the largest clusters with participants either preferred or rated all psychotherapies high in credibility "the optimistic clusters" or preferred none of the psychotherapies or rated them all low in credibility "the pessimistic clusters". Smaller clusters were identified where participants either preferred or rated MBCT/CBT higher in credibility. Moreover, an additional preference cluster was identified where a larger number of people preferred PDT.

Further analysis found certain dispositional characteristics as potential cluster membership predictors. Gender was found to be a significant predictor for both preference and credibility cluster membership. Men were more likely than women to not prefer psychotherapies and found all psychotherapies of relatively low credibility. Other dispositional characteristics were only found to be predictors of the credibility clusters. Participants with high levels of stress and higher trait mindfulness were more likely to rate all

psychotherapies high in credibility. Preliminary analysis also suggested certain personality traits such as emotionality could further explain some of the differences between clusters. While these specific results may be culture-dependent, they may suggest that it is important for clinicians to investigate the differential appeal of psychotherapy with individual clients prior to beginning therapy.

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Section C: Appendix of supporting material

Appendix 1: Experimental Materials

1.1 Quality checklists

NICE Quality appraisal checklist for ***Quantitative intervention studies***		**Goates-Jones and Hill (2008)** **USA**	**Atkinson, Worthington, Dana, and Glen (1991)** **USA**
1: Population	Is the source population or source area well described?	Yes	yes
	Is the eligible population or area representative of the source population or area?	No	no
	Do the selected participants or areas represent the eligible population or area? - Was method of selection well described? - What % of selected individuals or clusters agreed to participate? Were there any sources of bias?	no	no
2: Method of selection of exposure (or	Selection of exposure (and comparison) group.	No	No

comparison) group	- How was selection bias minimised? -		
	Was the selection of explanatory variables based on a sound theoretical basis? - How sound was the theoretical basis for selecting the explanatory variables?	yes	yes
	Was the contamination acceptably low? - Did any in the comparison group receive the exposure? - If so, was it sufficient to cause important bias?	Yes	Yes
	Is the setting applicable to the UK? - Did the setting differ significantly from the UK?	No Yes*	No Yes*
3: Outcomes	Were the outcome measures and procedures reliable? - Were outcome measures subjective or objective (e.g. biochemically validated nicotine levels ++ vs self-reported smoking −)? - How reliable were outcome measures (e.g. inter- or intra-rater reliability scores)? Was there any indication that measures had been validated (e.g. validated against a gold standard measure or assessed for content validity)?	Yes	Partial

	Were the outcome measurements complete? - Were all or most of the study participants who met the defined study outcome definitions likely to have been identified?	Yes	No
	Were all the important outcomes assessed? - Were all the important benefits and harms assessed? - Was it possible to determine the overall balance of benefits and harms of the intervention versus comparison?	Yes	Yes
	Was there a similar follow-up time in exposure and comparison groups? - If groups are followed for different lengths of time, then more events are likely to occur in the group followed-up for longer distorting the comparison. - Analyses can be adjusted to allow for differences in length of follow-up (e.g. using person-years).	n/a	n/a
	Was follow-up time meaningful? - Was follow-up long enough to assess long-term benefits and harms? - Was it too long, e.g. participants lost to follow-up?	n/a	n/a
4: Analyses	Was the study sufficiently powered to detect an intervention effect (if	No	No

	one exists)? - A power of 0.8 (i.e. it is likely to see an effect of a given size if one exists, 80% of the time) is the conventionally accepted standard. - Is a power calculation presented? If not, what is the expected effect size? - Is the sample size adequate?		
	Were multiple explanatory variables considered in the analyses? - Were there sufficient explanatory variables considered in the analysis?	Yes	No *
	Were the analytical methods appropriate? - Were important differences in follow-up time and likely confounders adjusted for?	Yes	yes
	Was the precision of association given or calculable? - Is association meaningful? - Were confidence intervals or p values for effect estimates given or possible to calculate? - Were CIs wide or were they sufficiently precise to aid decision-making? If precision is lacking, is this because the study is under-powered?	Partial	Partial
5: Summary	Are the study results internally valid (i.e. unbiased)?	Partial	Partial

	- How well did the study minimise sources of bias (i.e. adjusting for potential confounders)?		
	Are the findings generalisable to the source population (i.e. externally valid)? - Are there sufficient details given about the study to determine if the findings are generalisable to the source population? - Consider: participants, interventions and comparisons, outcomes, resource and policy implications.	No	No

JBI Critical Appraisal Checklist *Cross Sectional Study*	**Liddon, Kingerlee and Barry (2018)** **UK**
1. Were the criteria for inclusion in the sample clearly defined?	Yes
2. Were the study subjects and the setting described in detail?	Yes
3. Was the exposure measured in a valid and reliable way?	Yes
4. Were objective, standard criteria used for measurement of the condition?	No
5. Were confounding factors identified?	No
6. Were strategies to deal with confounding factors stated?	No
7. Were the outcomes measured in a valid and reliable way?	Partial
8. Was appropriate statistical analysis used?	No

CASP checklist questions *for Cohort studies*		**Pretronzi and Masciale, 2015** **USA**	**Shumaker, Killian, Cole, Hruby and Grimm (2017)** **USA**	**Kealy, Seidler, Rice, Oliffe, Ogrodniczuk and Kim (2020)**	**Stewart, Swift, Freitas-Murrell and Whipple (2013)** **USA**
A: Are the results of the trial valid?	Did the study address a clearly focused issue in terms of: - Population studied - Risk factors studied - Outcomes considered	Yes	Yes	Yes	Yes
	Was the cohort recruited in an acceptable way? - Was the cohort representative of a defined population?	Yes	Yes	Yes	Yes
	Was the exposure accurately measured to minimise bias? - Did they use subjective or objective measurements?	Partial	Partial	Partial	Partial

	- Have the measures been validated?				
	Was the outcome accurately measured to minimise bias?	Partial	Partial	Partial	Partial
	Have the authors identified all-important confounding factors? - List the ones you think might be important, and ones the author missed.	No	No	No	No
	Have they taken account of the confounding factors in the design and/ or analysis? - Look for restrictions in design and techniques?	No	No	No	No
	Was the follow up of subjects complete enough? - Was there anything special about the	n/a	n/a	n/a	n/a

	outcome of the people leaving, or the exposure of the people entering the cohort.				
	Was the follow up of subjects long enough?	n/a	n/a	n/a	n/a
B: what are the results?	What are the results of this study? - What are the bottom line results? -	Openness and secure attachment were found to be significant predictors of preference. Extraversion was found not to be a significant predictor of affinity towards psychodynamic orientation, Results revealed openness (r=.170 p < .05) and secure attachment (r=.171, p<.05) were significantly and positively correlated with preference of psychodynamic orientation.	Results indicate a significant positive correlation between Neuroticism as measured by the NEO-Five Factor Inventory and EA. The Neuroticism N4 Self-Consciousness subscale showed the strongest association with EA. There was no relationship between therapy preference and EA. Experiencing higher levels of EA does not seem to affect therapy preference.	No data analysis	For treatment preference Natural remedies were preferred by ANs with both high and low cultural identification compared to Caucasian participants. Relaxation was the most preferred option for AN college students who less strongly identified with AN culture. Additionally, AN participants from both groups were less likely than Caucasian participants to choose therapy as their first treatment option, and both had a significantly higher mean ranking for acupuncture compared to Caucasians. For provider type preference 10.6% of ANs endorsed community elder as the top option, compared to only 1.0% of Caucasians, and 9.6% of Caucasians endorsed psychiatrist as the top choice, compared to only 4.5% of Ans. No significant differences were found between these two groups on any of the four PEI-R subscales. Participants of all types expressed the strongest preference for treatment to focus on the

					therapy relationship,
	How precise are the results? - What are the confidence limits?	No	No	No	No Effect size reported, no confidence limits
	Do you believe the results? - Big effect is hard to ignore - Are the design and methods of this study sufficiently flawed to make the results unreliable?	Yes	Yes	Partial	Yes
C: will the results help locally?	Can the results be applied to the local population? - A cohort study was the appropriate method to answer this question?	No	No	No	No
	Do the results of this study fit with other available evidence?	Yes	Yes	Partial	Yes

	What are the implications of the study for practice? - recommendations from observational studies are always stronger when support by other evidence.	Partial Based on the findings thus far, it might be helpful for clinicians – that utilise an integrative approach – to tailor their treatment towards client preferences according to the significantly predictive dispositional qualities found in this study.	Partial Future studies may also wish to trace the relative presence of EA in individuals longitudinally, in the process shedding new light on how personality development relates to EA. Finally, future studies may also wish to examine more closely the factors that predispose individuals with elevated levels of EA to certain types of therapy approaches.	Partial The findings may encourage clinicians efforts to personalise treatment to individual male clients	Partial The Authors recommended providers should seek to assess cultural identification and recognise how it may influence client preferences

CASP checklist questions *for Cohort studies*	**Cooper, Norcross, Raymond-Barker and Hogan (2019)**	**Bragesjö, Clinton, and Sandell, (2004)**	**Frövenholt, Bragesjö, Clinton, and Sandell, (2007)**	**Farrell and Deacon, (2016)**	**Sandell, Clinton, Frövenholt and Bragesjö (2011)** **Sweden**

		USA				
A: Are the results of the trial valid?	Did the study address a clearly focused issue, in terms of: - Population studied - Risk factors studied - Outcomes considered	Yes	Yes	Yes	Yes	Yes
	Was the cohort recruited in an acceptable way? - Was the cohort representative of a defined population?	Yes	Yes	Yes	Yes	Yes
	Was the exposure accurately measured to minimise bias? - Did they use subjective or objective measurements? - Have the measures been validated?	Subjective measure	Subjective measure	Subjective measures	Subjective measures	Subjective measures
	Was the outcome accurately measured to minimise bias?	Partial	Partial	Partial	Partial	Partial
	Have the authors identified all-important confounding factors? - List the ones you think might be	No	No	No	No	No

	important, and ones the author missed.					
	Have they taken account of the confounding factors in the design and/ or analysis? - Look for restrictions in design and techniques?	Yes	Yes	Yes	Yes	Yes
	Was the follow up of subjects complete enough? - Was there anything special about the outcome of the people leaving, or the exposure of the people entering the cohort.	n/a	n/a	n/a	n/a	n/a
	Was the follow up of subjects long enough?	n/a	n/a	n/a	n/a	n/a
B: what are the results?	What are the results of this study? - What are the bottom line results? -	Laypeople preferred relative directive forms of psychotherapy such as CBT.	Participants expressed preference for cognitive-behavioural and cognitive forms of psychotherapy. Participants with previous experience of psychotherapy preferred	Majority of participants within the general population ranked CBT (and ‘'on’t know’ responses) first, whereas the two patient samples were less indecisive and more often preferred	Community members rated relational aspects of psychotherapy higher than scientific credibility across both disorder non-specific vignettes and disorder specific vignettes. Scientific credibility was rated	Six distinct groups of participants were delineated. Some approached psychotherapy in an undifferentiated manner, tending to either embrace all or reject all of the methods examined

			psychodynamic psychotherapy.	PDT and, in particular, CT.	as important across problem types among community members	.Others had differentiated ideas about the credibility of specific therapeutic approaches. These clusters were strongly associated with differential treatment preferences. They were also associated with helpfulness beliefs, type of psychological problems, previous experiences with psychotherapy, and gender.
	How precise are the results? - What are the confidence limits?	No	No	No	No	No
	Do you believe the results? - Big effect is hard to ignore. - Are the design and methods of this study sufficiently flawed to	Yes	Yes	Yes	Yes	Yes

	make the results unreliable?					
C: will the results help locally?	Can the results be applied to the local population? - A cohort study was the appropriate method to answer this question?	Yes	Partial	Partial	No	Partial
	Do the results of this study fit with other available evidence?	Yes	Yes	Yes	Yes	Yes
	What are the implications of the study for practice? - Recommendations from observational studies are always stronger when support by other evidence.	Partial This line of research could increase the frequency of practitioners assessing their patients' treatment preferences and the therapy dyads deliberating in a session about the value and limits of accommodating those preferences.	Partial Clinically, the present results underline the potential importance of assessing and taking into account expectations of psychotherapy, in terms of credibility, prior to the assignment and commencement of treatment.	Future cross-national comparisons will be important. It will also be essential to look more closely at a person's actual choice of psychotherapy rather than just perceived preference and disentangle the influence of variables such as treatment experience and psychological disturbance on the credibility of different forms of psychotherapy	Recommend therapists should discuss preferences at the outset of treatment.	For clinicians, it may be important to investigate the differential appeal of specific components of psychotherapy as well as entire therapy packages in individual cases prior to commencing therapy. For researchers, it may be important to consider whether outcome studies would become more informative by taking patients' beliefs

						and preferences into account.

1.2 Vignettes

Cognitive-behavioural psychotherapy

What is it?

Cognitive behavioural therapy (CBT) is based on the idea that our thoughts, feelings, what we do, and how our bodies feel, are all connected. If we change one of these, we can alter all the others. CBT typically focuses on creating change by helping people change their thinking and what they do.

Aims
In CBT, the therapist will develop goals with you based on what you would like to change. These goals will be specific, measurable, achievable and time-specific.

What happens in sessions?

· Usually, you and the therapist will meet once a week for about an hour. The length of therapy is typically short-term between 6 to 25 weeks. CBT can also be held in groups. CBT sessions are structured and tend to focus more on current circumstances.

· You will be encouraged to play an active part in the sessions. At the start of each session, you and the therapist will agree on what to talk about.

· Between sessions, you will be given homework. This, for example, can give you time to try new ways of dealing with problems.

· CBT involves different sets of techniques. Some techniques focus on the way you think or changing behaviour. For example, if you felt low in mood, your therapist could support you to become more physically active, which in turn could improve your mood.

You and the therapist

In CBT, the therapist aims to help you feel understood and comfortable in sessions. They will ask for your agreement before trying any techniques. This relationship can be compared to doing a course. During therapy, the therapist will aim to provide you with resources so you can, in effect, become your own therapist.

Please choose the answers below that best match your opinion.

Mindfulness-Based Cognitive Therapy

What is it?

Mindfulness-based cognitive therapy (MBCT) is based on the idea that we can become unhelpfully caught up in past difficult experiences and worry about the future. MBCT aims to teach you how to be more mindful. Being mindful involves paying attention to what is happening for us right now in a gentle way. By bringing attention to the present moment, the idea is we are less likely to get stuck with past difficulties and worries about the future. The more you are able to do this, it can help you develop a kinder and less critical relationship to yourself and your experience.

Aims

MBCT aims to help you become more mindful. This can improve your general physical and mental wellbeing.

What happens in sessions?

· You and the therapist will meet in a class setting of 8-12 participants for 2 hours a week over 8 weeks. It is often practised in a class format but can also be done on an individual basis

· Sessions usually start with a mindfulness meditation practice. This lasts for about 30-40 minutes. For example, the teacher might invite you to lie down to bring attention to different areas of your body. After mindfulness practice, there will be a discussion in the class about what people experienced during their practice.

· Sessions can also include experiences that can help you increase your awareness of thoughts, feelings and bodily sensations. The focus is on developing an independent practice and developing greater awareness of mental events.

· You will be asked to practice mindfulness at home daily. This can include mindfulness meditation for 30-40 minutes. This may mean bringing mindfulness to day-to-day activities, like brushing your teeth, showering, washing the dishes or making your bed.

You and the therapist

The relationship between the practitioner and you is based on a feeling of trust and security. This relationship can be compared to a teaching situation, where the practitioner actively guides, and you subsequently become more skilful as treatment progresses.

Please choose the answers below that best match your opinion.

Psychodynamic psychotherapy

What is it?
Psychodynamic Psychotherapy involves the interpretation of mental and emotional processes which can be both conscious and unconscious. The therapist will attempt to help you find patterns in your emotions, thoughts, and beliefs to gain insight into yourself. These patterns are often found to begin in your childhood, and psychological difficulties are thought to be caused by unresolved conflict.

Aims
Psychotherapy aims to help make you more aware of your mental and emotional processes. This can help reduce unresolved conflict and improve your psychological wellbeing.

What happens in sessions?
· You and the therapist will usually meet once or twice a week for about an hour. Sometimes therapy can be as short as 6 weeks and for others can last over a year.

· When therapy is shorter, it tends to focus on a particular problem. When therapy is longer, it tends to be more open-ended and exploratory. Therapy is typically carried out in an individual setting, but it can also be done in a group setting.

· In sessions, it will be up to you what you talk about. This can be things that happened recently, and how it felt. It can also be your feelings about what is happening in the room. By thinking about what has come up during sessions, even if this feels difficult, the idea is this can help you know yourself better.

· While the therapist will not direct the sessions, they will make interpretations of your experiences. In therapy, you can explore how we repeat patterns of interacting from past relationships with people in the present. This can help to increase your understanding of why you behave in a particular way.

You and the therapist

The therapist will aim to help you feel safe in the sessions. In general, the therapist's role is to help you connect the dots between your past experiences and your current difficulties and leverage your internal resources to address them.

Please choose the answers below that best match your opinion.

1.3 Outcome measures

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Appendix 2: Ethics materials

2.1 Ethics committee approval in principle letter

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2.2 Email correspondence and approval of amendments

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2.3 Information sheet for participants

Online Presentation using Qualtrics
Information about the research

Title of Project: Exploring public perceptions of credibility of psychological therapies.

Hello. My name is Alexandra Nielsen, and I am a trainee clinical psychologist supervised by Dr. Fergal Jones, Research Director of the Clinical Psychology Programme at Canterbury Christ Church University. I would like to invite you to take part in a research study. Before you decide whether to take part, it is important that you understand why the research is being done and what it would involve for you.

Talk to others about the study if you wish.

What is the purpose of the study?

The purpose of the study is to explore whether people in the general population have a preference for different psychological therapies and how credible they believe they are.

Why have I been invited?

You are invited to take part if you are over 18 years old and currently reside in the United Kingdom.

Do I have to take part?

It is up to you to decide whether to participate in the survey. If you agree to take part, I will then ask you to sign a consent form. You are free to withdraw at any time, without giving a reason.

You are free to stop doing the survey at any point, without giving a reason. However, if you do not complete the survey, you will be not be able to withdraw your data, and any data you have contributed may still be analysed. You can withdraw by simply closing the browser window.

What do I have to do?

This study involves completing an anonymous online survey.

As part of the survey which should take approximately 30 minutes, you will be asked to read three descriptions of psychological treatment and then asked a series of questions regarding your view of them and your preferences. You will be asked to fill out some general demographic questions such as gender, ethnicity and education level as previous research has indicated these characteristics are associated with certain therapeutic preferences. You will also be asked some questions related to anxiety and stress.

You can start the survey, save the link to your bookmarks and access it again at a later time, as long as it is within a 2-week window. Questions are all multiple choice. Please read each of the statements carefully and choose the answer that best matches your opinion.

There are two parts to this study. It will present you with three descriptions of psychological therapies followed by questions regarding your view of each individual therapy. Any answer is completely voluntary, yet the hope is that you will want to give an answer to every question.

What are the benefits of taking part?

There are no immediate benefits to taking part in this study. However, you may become more familiar with the different psychological therapies available, and you will have a chance to be involved in potentially furthering the evidence basis for psychological treatment preferences.

What are the disadvantages of taking part?

We think it is unlikely that completing this survey will cause distress for most people. However, sometimes answering questions in relation to our current mental state may be upsetting, particularly if we're currently feeling vulnerable or are struggling with mental health problems. If you think that answering multiple choice questions about symtpoms associated with depression, anxiety and stress (or about any of the other areas detailed above) may be difficult for you, we'd advise you not to participate in the survey. If you do participate and find some of the questions unexpectedly trigger distress or upset, or highlight issues you may wish to address through psychological therapy or other forms of intervention, you may wish to seek additional support through your GP.

Expenses and payments

In appreciation of your time, if you provide your email address at the end of the survey, you will be entered into a prize draw for one of three Amazon vouchers worth £100. You will be able to enter in the prize draw even if you do not answer all the questions (you'll still need to go through to the end of the survey however, in order to register for the draw).

What if there is a problem?

If you have any concerns or feedback about any aspect of this study, please let me know by emailing me at a.l.nielsen300@canterbury.ac.uk, and I will do my best to address your concerns and feedback. You can also contact me by leaving a message on the 24-hour voicemail phone number 01227 927070. Please leave a contact number and say that the message is for me (Alexandra Nielsen) and I will get back to you as soon as possible. If you remain unhappy and wish to complain formally, you can do this by contacting Margie Callanan via Margie.Callanan@canterbury.ac.uk .

If you have any further questions about the research or your participation, please contact me via a.l.nielsen300@canterbury.ac.uk.

Will information from or about me from taking part in the study be kept confidential?

Yes. We will follow ethical and legal practice, and all information about you will be handled in confidence.

What will happen to the results of the research study?

The results of the study will be written up for a doctoral thesis and potentially academic or clinical publications related to Clinical Psychology. The data will be stored securely

Who is sponsoring and funding the research?
This study is supported by Canterbury Christ Church University.

Who has reviewed the study?
This study [has been] reviewed and given favourable opinion by The Salomons Ethics Panel, Salomons Institute for Applied Psychology, Canterbury Christ Church University

Online Presentation using Qualtrics
Debriefing sheet
Thank you for taking the time to complete this online survey!

What will happen after I take part?
All the data collated in this study will be used for a thesis and disseminated via a possible research article in a psychology journal and conference presentations. The study is scheduled to be completed in April 2021. If you are interested in the findings, please feel free to contact the researcher a.l.nielsen300@canterbury.ac.uk directly at the end of April 2021.

In the unlikely event that after participating in this research study highlights any issues you may need further support with, then we recommend you contact your GP Or NHS Direct details listed below.

England

NHS England direct on 0300 311 22 33 or 111 to speak directly to a health professional.

Scotland
NHS Scotland direct on 111 to speak directly to a health professional

Wales
NHS Wales direct on 0845 46 47 or 111 if available in your area

Northern Ireland
Lifeline on 0808 808 8000 across Northern Ireland

Additional information

If you feel that you could benefit from psychological therapy and/or receive support in relation to your mental health we have listed some additional information below that you may find useful.

https://www.bacp.co.uk/

https://www.bps.org.uk/public/find-psychologist

https://www.rethink.org/

Further information and contact details
If you have any concerns or feedback about any aspect of this study, please let me know by emailing me at a.l.nielsen300@canterbury.ac.uk, and I will do my best to address your concerns and feedback. You can also contact me by leaving a message on the 24-hour voicemail phone number 01227 927070. Please leave a contact number and say that the message is for me (Alexandra Nielsen) and I will get back to you as soon as possible. If you remain unhappy and wish to complain formally, you can do this by contacting Margie Callanan on margie.callanan@canterbury.ac.uk

If you have any further questions about the research or your participation, please contact me via a.l.nielsen300@canterbury.ac.uk

Ethics approval number:
Version number:

Online Presentation using Qualtrics

Participants will not be able to proceed with the survey if they do not check yes to each box

CONSENT FORM
A survey exploring public perceptions of credibility of psychological therapies.

Name of Researcher: Alexandra Nielsen

Please check box

1.I confirm that I have read and understand all the information that has just been provided about this study	☐
2. I confirmed that I have been in contact with Alexandra Nielsen if I had any questions about the study and I've had these answered.	☐
3.I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason.	☐
4. I understand that data collected during the study may be looked at by the lead supervisor [Dr Fergal Jones]. I give permission for the individual to have access to the anomymised data.	☐
5. I give my permission for anonymised data to be used in future publications.	☐
6. I give my permission for anonymised data to be used in future research.	☐

7. I confirm that I am above 18 years old, currently living in the UK and that I do not expect that answering questions about my mental health will cause me distress ☐

Name of Participant_____ Date_____

Signature _____

Name of Person taking consent _____ Date_____

Signature _____

2.4 Information sheet for professionals

This will be sent via email

Hello. My name is Alexandra Nielsen, and I am a trainee clinical psychologist supervised by Dr Fergal Jones, Research Director of the Clinical Psychology Programme at Canterbury Christ Church University.

I would like to invite you to take part in a short online research study. Before you decide whether to take part, it is important that you understand why the research is being done and what it would involve for you.

Why have I been invited?

I am recruiting a small sample of experienced professional within the field to review descriptions of three psychological therapies including: Cognitive Behavioural Therapy, Psychodynamic Psychotherapy and Mindfulness Based Cognitive Therapy that will be used in an online survey exploring public perceptions of credibility of psychological therapies.

I will ask you to rate, on a scale from 0-10, the three short descriptions according to clarity of expression, accuracy and comprehensiveness.

If you chose to participate I will contact you again to review any changes made to the descriptions and ask you to rate them again.

Do I have to take part?

It is up to you to decide whether to participate in the study. If you agree to take part, I will then ask you to sign a consent form. You are free to withdraw at any time, without giving a reason.

What if there is a problem?

If you have any concerns or feedback about any aspect of this study, please let me know by emailing me at a.l.nielsen300@canterbury.ac.uk, and I will do my best to address your concerns and feedback. You can also contact me by leaving a message on the 24-hour voicemail phone number 01227 927070. Please leave a contact number and say that the message is for me (Alexandra Nielsen) and I will get back to you as soon as possible. If you remain unhappy and wish to complain formally, you can do this by contacting Margie

If you have any further questions about the research or your participation, please contact me via a.l.nielsen300@canterbury.ac.uk.

Will information from or about me from taking part in the study be kept confidential?

Yes. We will follow ethical and legal practice, and all information about you will be handled in confidence.

What will happen to the results of the research study?

The results of the study will be written up for a doctoral thesis and potentially academic or clinical publications related to Clinical Psychology. The data will be stored securely

Who is sponsoring and funding the research?
This study is supported by Canterbury Christ Church University.

Who has reviewed the study?
This study [has been] reviewed and given favourable opinion by The Salomons Ethics Panel, Salomons Institute for Applied Psychology, Canterbury Christ Church University

CONSENT FORM
A survey exploring public perceptions of credibility of psychological therapies.

Name of Researcher: Alexandra Nielsen

Please check box

1.I confirm that I have read and understand all the information that has just been provided about this study	☐
2. I confirmed that I have been in contact with Alexandra Nielsen if I had any questions about the study and I've had these answered.	☐
3.I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason.	☐
4. I understand that data collected during the study may be looked at by the lead supervisor [Dr Fergal Jones]. I give permission for the individual to have access to the anonymised data.	☐
5. I give my permission for anonymised data to be used in future publications.	☐
6. I give my permission for anonymised data to be used in future research.	☐

Name of Participant_____ Date_____

Signature _____

Name of Person taking consent _____ Date_____

Signature _____

2.5 Debrief information for participants and provided to university ethics committee

Public perception of psychotherapy credibility Study
Debrief

Thank you very much for participating in the public perception of psychotherapy credibility study.

This email explains the purpose of the study and signposts where you might be able to find out more information about the different psychotherapies presented.

What was the purpose of the study?

We wanted to explore if there are clusters in the general population with regard to treatment preference and credibility with respect to three different psychotherapies, Mindfulness-based Cognitive Therapy (MBCT), Psychodynamic Psychotherapy (PDT) and Cognitive Behavioural Therapy (CBT). Furthermore, we wanted to explore if certain participant characteristics, such as gender age and personality predicted potential cluster membership.

How did the study investigate this?

We made three different vignette that introduced you, our participants, to three different types of psychotherapy PDT, MBCT and CBT. We also asked you to fill in a number of questionnaires to help us understand whether your dispositional characteristics, such as gender, age or personality would influence your preference of and perceived credibility of the three different psychotherapies. We asked for outcome measures of your perceived credibility of the three psychotherapies, your emotional state, personality traits, and your mindfulness traits.

What did we find?

While the results are still being analysed, overall participants fit into distinct credibility and preference clusters. We found the largest clusters with participants either preferred or rated all psychotherapies high in credibility "the optimistic clusters" or preferred none of the psychotherapies or rated them all low in credibility "the pessimistic clusters". Smaller clusters were identified where participants either preferred or rated MBCT/CBT higher in credibility. Moreover, an additional preference cluster was identified where a larger number of people preferred PDT. We also explored whether any measures, such as personality, demographic details, trait mindfulness and general wellbeing, predicted cluster membership. We found women were more likely than men to prefer all psychotherapies and find them more credible. Similarly, people who experienced high levels of stress were more likely to find all psychotherapies credible.

What does this tell us?

The results tell us that people in the general population within the United Kingdom appear to prefer and view the credibility of the three described psychotherapies differently even if they have not previously received therapy. These findings might help identify groups that find some or all these psychotherapies less credible and that this could then be used a guide for future research that could explore why this may be and what might increase the credibility of the therapies concerned and/or whether it is best to offer alternatives.

Where can I go to find out more about psychotherapy?

If you are interested in finding out more about the different therapies or feel that you could benefit from psychological therapy and/or receive support in relation to your mental health we have listed some additional information below that you may find useful.

https://www.bacp.co.uk/

https://www.bps.org.uk/public/find-psychologist

https://www.rethink.org/

If I have any further questions, who can I contact?

Please email the primary researcher of the study, Alexandra Nielsen: an300@canterbury.ac.uk with any further questions. Thank you again for your kind participation in this study.