

**Cultural differences in causal beliefs and explanatory models for  
Psychosis in South Asian populations**

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## Contents

Word Counts .....	5
<b>Abbreviations .....</b>	<b>6</b>
<b>Abstract.....</b>	<b>7</b>
<b>Declaration.....</b>	<b>8</b>
<b>Copyright Statement.....</b>	<b>9</b>
<b>Acknowledgements .....</b>	<b>10</b>
Paper 1: Causal explanations for Psychosis in South Asian Populations in patients, relatives and the general public: A systematic review and narrative synthesis.....	11
ABSTRACT.....	12
KEYWORDS .....	12
1. Introduction.....	13
1.1. Objectives .....	16
2. Methods .....	17
2.1. Population .....	17
2.2. Types of studies .....	17
2.3. Search strategy .....	17
2.4. Inclusion and Exclusion criteria.....	18
Additional criteria .....	18
2.5. Selection of relevant studies .....	18
2.6. Quality Assessment.....	18
2.8. Data extraction and synthesis.....	20
3. Results.....	21
3.1. Patient Studies.....	21
3.2. Relative Studies .....	29
3.3. General population studies.....	33
4. Discussion.....	38
4.1. Limitations .....	45
5. Conclusion .....	46
6. Summary.....	47
7. Clinical implications/further research.....	48
8. Disclosure .....	49
References.....	50
<b>Paper 2: Cultural differences between White British and South Asians in Causal Beliefs about Psychosis in a healthy adolescent general population sample .....</b>	<b>62</b>
ABSTRACT.....	64

<b>1. Introduction.....</b>	<b>65</b>
1.1 Stigma and Culture .....	65
1.2 Causal Explanations.....	67
1.3 The Current Study.....	70
<b>2. Method.....</b>	<b>71</b>
2.1 Participants.....	71
2.2 Procedure .....	72
2.3 Material.....	72
<b>3. Results.....</b>	<b>75</b>
3.1. Demographics .....	75
3.1.1 Normality of data .....	75
3.2 Causal Beliefs .....	76
3.3 Contact Intentions .....	76
3.4 Self-esteem and control over illness .....	76
3.5 Mediation Analyses .....	77
3.5.1. Causal beliefs.....	77
3.5.2. Contact intentions .....	77
3.6 Moderation Analysis.....	78
3.6.1. Exploratory analysis of the data .....	79
<b>4. Discussion.....</b>	<b>79</b>
4.1 Limitations .....	82
4.2 Clinical implications and future research.....	82
<b>5. Conclusions.....</b>	<b>84</b>
<b>References.....</b>	<b>86</b>
<b>Paper 3: Critical reflections of Cultural differences in causal beliefs for psychosis and explanatory models in South Asian populations .....</b>	<b>95</b>
<b>1. Abstract.....</b>	<b>96</b>
<b>4. The research study.....</b>	<b>98</b>
<b>4.1. Difficulties encountered during the research project .....</b>	<b>102</b>
4.1.1. Ethical approval process .....	102
4.1.2. Recruitment .....	103
4.1.3. Data Analysis .....	105
4.1.4. Reliability and Factor analysis .....	106
4.1.5. Validity and use of measures .....	107
4.1.6. Normality .....	108
4.1.7. Results .....	109

<b>5. Final reflections of the overall research process .....</b>	<b>109</b>
<b>5.1. Areas for future research .....</b>	<b>110</b>
<b>References.....</b>	<b>113</b>
<b>APPENDICES .....</b>	<b>115</b>
<b>Appendix 1: PIS 16-17 yrs.....</b>	<b>116</b>
<b>Appendix 2: PIS 18-12 yrs.....</b>	<b>119</b>
<b>Appendix 3: Parent information sheet .....</b>	<b>122</b>
<b>Appendix 4: Participant Consent form .....</b>	<b>126</b>
<b>Appendix 5: Flow chart of data collection procedure.....</b>	<b>127</b>
<b>Appendix 6: Distress Protocol.....</b>	<b>128</b>
Appendix 7: Participant Debrief sheet .....	129
Appendix 8: Ethics Approval letter .....	130
Appendix 9: Study protocol .....	131
Appendix 10: Questionnaire Pack.....	136
Appendix 11: Teacher letter.....	161
Appendix 12 Empirical Paper Journal submission author guidelines .....	162
Appendix 13 Systematic Review Journal submission author guidelines .....	175
Appendix 14: Highlights for Clinical Psychology Review Journal .....	186
Appendix 15: Psychosis definition .....	187
Appendix 16- Quality Assessment Tool Rating .....	188

## **List of Tables**

Table 1: Table of characteristics of studies included in the review (n=17) .....	56
Table 2: Participant Demographics for South Asian and White British groups .....	90
Table 3: Mean and standard deviation and statistics of all the measures analysed.....	91
Table 4: Linear model of predictors of causal beliefs.....	92
Table 5: Linear model of predictors of contact intentions .....	92
Table 6: Linear model of predictors of CAPE occurrence.....	93

## **List of Figures**

Figure 1: PRISMA diagram for search strategy.....	55
Figure 2: Mediated path for contact intentions .....	94
Figure 3: A flow chart of data collection procedure .....	127

## **Word Counts**

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## **Abbreviations**

ANCOVA- Analysis of Covariance

BAMHQ- Beliefs about Mental Health Problems questionnaire

BCa CI- Bootstrap confidence intervals

CAPE- Community Assessment of Psychic Experiences

CI- Confidence Intervals

DUP- Duration of untreated Psychosis

MANCOVA- Multivariate Analysis of Variance

MHLOC- Mental Health Locus of Control Scale

MHLOO- Mental Health Locus of origin Scale

## **Abstract**

### **Cultural differences in causal beliefs and explanatory models in South Asian populations**

The University of Manchester

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Doctor of Clinical Psychology, ClinPsyD

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The thesis sought to explore cultural differences of causal beliefs for psychosis in South Asian populations. It is comprised of three standalone papers. Paper one and two have been prepared for submission to a journal and in accordance with the journal guidelines.

Paper one is a systematic literature review synthesising studies relating to causal beliefs that people from South Asian populations give for psychosis. Databases were systematically searched and 17 studies were included in the review. Some core themes emerged from the studies. The majority of South Asians gave supernatural and spiritual beliefs for psychosis and reportedly prefer more traditional and non-biomedical treatment options.

Paper two is a quantitative study which investigated cultural difference in causal explanations for psychosis in South Asian and White British young people. There were 206 participants that completed the questionnaire packs, of these 128 were included in the final analysis. The clinical implications of the findings are discussed with reference to existing literature.

Paper three is a critical review of the research process, focusing on the experience of undertaking the research project including personal reflections of the process, as well as the implications of the research for future research needs.

## **Declaration**

No portion of the work referred to in the thesis has been submitted in support of an application for another degree or qualification of this or any other university or other institute of learning.



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## Acknowledgements

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I would like to dedicate this thesis to my amazing parents who taught me nothing is impossible. My father's dream was for me to complete my doctorate and even though he is not here physically, I hope this will go some way to honouring his memory. My mother's strength, resilience and unconditional love throughout the last 3 years, more so during her illness have inspired me every day and pushed me to be the best I can. I would never have been able to do this without her prayers, love and having her by my side.

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Paper 1: Causal explanations for Psychosis in South Asian Populations in patients, relatives and the general public: A systematic review and narrative synthesis

Prepared in accordance with requirements for submission to  
*Clinical Psychology Review Journal* (Appendix 13 for author guidelines and  
Appendix 14 for Highlights- summary bullet points of research which is a  
requirement for paper submission to this journal)

(50 page limit of journal)

# **Causal explanations for Psychosis in South Asian Populations in patients, relatives and the general public: A systematic review and narrative synthesis**

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## **ABSTRACT**

Causal beliefs offer explanations for illness and subsequent help seeking and treatment. They have been studied in relation to physical health problems and common mental health problems, but research into causal beliefs for psychosis is limited. The aim of this systematic review was to assess the nature of causal beliefs across three South Asian populations. Overall, eight databases were searched and 13,025 articles were identified. These were screened systematically and a total of 17 articles investigating causal beliefs in South Asian populations were included in this review. The studies indicate that the majority of South Asian people hold supernatural beliefs as the main cause for psychosis. However, some studies also reported that people can hold multiple and contradictory causal beliefs simultaneously, which can impact on their help seeking behaviours and treatments considered. Those that attribute more supernatural causes for psychosis may miss out on evidence based treatments, which could help manage their difficulties effectively and get the help they need earlier. The findings from this review have important implications for clinical practice, in terms of early intervention, clinical practice, diagnosis and engagement of South Asian communities. Understanding causal beliefs may also help to reduce stigma of psychosis and break down barriers within South Asian communities.

## **KEYWORDS**

Psychosis

South Asian

Causal beliefs

Explanatory models

Supernatural beliefs

Narrative synthesis

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## **1. Introduction**

An aspect of an individual's illness perceptions is what they believe to be the cause of their problem. Causal reasoning is a natural cognitive process used to make sense of many human experiences (Danks, 2007). In physical health, causal beliefs have been shown to influence the treatment an individual seeks, and their emotional response to a health threat (Charmaz, 1987). Early research into explanatory models of illness has highlighted their importance in proposing explanations and offering justifications for illness occurring (Kleinman, 1980). They also give an insight into the significance of personal and social factors at play in the experience of illness. Kleinman, (1980) argued that it is important to distinguish explanatory models from general beliefs about illness. He suggested that general beliefs of illness exist prior to and are independent of episodes of illness, whereas explanatory models, despite placing some emphasis on general beliefs, are constructed and connected in order to respond to specific episodes of illness. Also, explanatory models of illness encompass a person's ideas about the nature of their problems, its cause, severity, prognosis and treatment (Broadbent, Kydd, Sanders, & Vanderpyl, 2008; Freeman, Dunn, Garety, Weinman, Kuipers, Fowler, et al., 2013; Marcus, Garety, Weinman, Emsley, Dunn, Bebbington & Waller, 2014). Therefore, it is important to elicit and understand people's explanatory models.

Previous research has focused on understanding and eliciting explanatory models of common mental health problems such as depression and anxiety (Aidoo & Harphan, 2001; Jacob, Bhugra, Lloyd, & Mann, 1998). Research has also explored how people perceive their mental health problems, the impact of causal models on wellbeing and treatment outcome (Petie, Broadbent & Kydal, 2008). One of the key findings from these studies has been how causal beliefs for these mental health

problems differ culturally. People hold a variety of beliefs concerning the causes of mental health problems and such beliefs have been reported to vary across the different cultures in the world (Thorncroft, 2006). Models and theories of health and physical illness have been reported to be culturally constructed experiences (Manderson, 1990; Sheik & Furnham, 2000). In relation to mental health, causal beliefs can be influenced by scientific theory including the biomedical model, which is concerned with pathology of the brain and the psychosocial model, which is concerned with a person's psychological development and interaction with their social environment (Manderson, 1990). Additionally, an individual's causal model of mental health problems is also related to their cultural beliefs (Sheik & Furnham, 2000). This conceptualisation is influenced by the person's experiences in their country of origin as well as those in their adopted countries. Therefore beliefs in more traditional cultures are deep rooted and more structured than in many western societies with religion playing a significant role in understanding the cause and treatment of illness (Sheik & Furnham, 2000).

Research conducted in more developed countries found that two frameworks were predominant in terms of understanding and treatment of psychosis. They found that individuals experiencing psychosis often understand their experiences using psychosocial frameworks, placing an emphasis on life experiences such as stress or trauma. (Dudley, Siitarinen, James, & Dodgson, 2009; Lobban, Barrowclough, & Jones, 2005; Carter, Read, Pyle & Morrison, 2015). Additionally treatment can be pharmacological and based within a biomedical framework. However, in less developed countries this is not the case as often either biomedical or psychosocial frameworks are not present. For example a community survey in Chennai, India, identified a cohort of 261 people with a diagnosis of schizophrenia and found that

28.7% had never received any antipsychotic treatment (Padmavati, Thara, Kumar, & Srinivasan, 1998). One hypothesis put forward suggests that reluctance to rely on biomedicine and its science-based healing methods as well as feelings of shame and anxiety, may prevent some South Asian patients from expressing their concerns and from accepting the help of mental health professionals. This may contribute to delays in obtaining treatment. In addition, even when such patients agree to participate in a biomedical treatment programme, the mismatch in explanatory models prompts many to drop out (Kleinman, 1980; Dein, Alexander, & Napier, 2008).

“Time to change”, a national social marketing campaign aiming to tackle stigma in mental health in the United Kingdom, developed a project to understand the experiences of stigma and discrimination encountered by South Asian people with mental health problems in England (Harrow Council, 2010). They found that mental health problems were a taboo subject for the South Asian community. There was little open discussion about mental health problems, and people with mental health difficulties agreed that their diagnosis was something to be kept private and not openly discussed. The report explored key issues and attitudes specific to the South Asian community such as shame, fear and secrecy surrounding mental illness, the causes of mental health problems often being misunderstood and, the family being both caring and isolating. Also it was felt that people with mental health problems were not valued and marriage prospects could be damaged if people found out about it. The people interviewed did not believe that mental health problems were medical conditions that could be managed or even treated professionally. Many other causes for mental health problems were given including

black magic (which can also end up being a treatment option), the will of God, genetics or bad parenting.

There is an indication, therefore, that causal beliefs in South Asian populations are influenced by cultural factors such as supernatural beliefs and that mental health problems are considered shameful and taboo. However, to our knowledge a systematic approach to reviewing the research in this area has not previously been undertaken. It is therefore important that the explanatory models of psychosis specifically in South Asian populations are examined in detail. Furthermore, there is limited understanding about how causal beliefs differ across different South Asian populations such as those with experience of psychosis, their relatives and the general population. It is argued that the family perspective with this population in particular is important, as often the family are the main carers for those that have mental health problems and they have a greater influence regarding treatment decisions and the support and treatment that is sought.

### **1.1. Objectives**

This review aims to systematically examine the current literature on the explanatory models of psychosis held by South Asian populations with the purpose of answering the following two questions;

1. What are the causal beliefs people give for psychosis in the South Asian population and do these beliefs differ in those with psychosis, their relatives and the South Asian general population?
2. Does treatment preference for psychosis within the South Asian population differ between those with psychosis, their relatives and the South Asian general population?



## **2. Methods**

### **2.1. Population**

Studies were required to include a sample of individuals who either had a diagnosis of psychosis or relatives of someone with a diagnosis of psychosis, or general population with views on psychosis.

### **2.2. Types of studies**

All the articles that looked at psychosis causal beliefs in a South Asian population were included in the review. The studies were required to include a measure that specifically assessed causal beliefs. Articles were excluded if they did not have an outcome measure looking at causal beliefs, not inclusive of a south Asian population or were not specifically focused on psychosis. A range of study designs were considered for inclusion in the review.

### **2.3. Search strategy**

In order to review and assess causal beliefs given for psychosis, the following databases were used: Pubmed, Geobase 1994-Dec 2015, Ovid medline, Psych info 1806 December–week 2 2015, Psych articles full text, Embase 1974 to 2015 December 2015, Global health 1973 to 2015 week 49 and Google Scholar. The search strategy employed the following search terms: Psychosis OR Schizophrenia OR psycho\* OR schizo\* OR psychot\* AND causal beliefs OR illness beliefs OR explanatory models AND ethnicity OR ethnic\* OR South Asian OR Pakistani OR Bengali OR Indian, OR Bangladeshi, OR Sri Lankan. In addition, references of articles identified using these methods were also manually searched in the event that some articles may have been missed in the electronic search.

#### **2.4. Inclusion and Exclusion criteria**

We included studies that were conducted with South Asian populations which, provided data on causal beliefs in patients with psychosis.

We excluded studies looking at causal beliefs about physical health problems and those reporting on common mental health problems such as depression and anxiety.

We also excluded studies that did not have a measure of causal beliefs, and that were review articles and not conducted with South Asian populations.

#### **Additional criteria**

Only English speaking articles were included in the review. The inclusion criteria for this review did not contain restrictions on dates.

#### **2.5. Selection of relevant studies**

Initially titles were screened and excluded if they did not meet the criteria.

Following this, abstracts were carefully examined and, those not meeting criteria were excluded. For the remaining articles, the full manuscripts were requested and read. For abstracts from articles which provided some uncertainty full manuscripts were requested and read.

#### **2.6. Quality Assessment**

All 17 papers were examined to see if they met the exclusion and inclusion criteria. Methodological quality of studies was assessed using The Mixed Method Appraisal Tool (MMAT; Pluye, Gagnon, Griffiths, & Johnson-Lafleur, 2009). This tool has been designed specifically for the appraisal stage of complex systematic literature reviews that include qualitative, quantitative and mixed method study designs. This was found to be the most useful quality assessment measure for the current systematic review as the search had yielded studies that had utilised all three study designs. For each relevant study the methodological quality can be described using

the corresponding criteria, which may lead to exclusion of studies with the lowest quality from the synthesis or to consider the quality of studies for contrasting their results. Due to the limited number of studies available in this area of research the study team agreed to retain all studies, including those of low quality.

The scoring for this assessment tool is as follows: For qualitative and quantitative studies the overall score is the number of criteria met divided by 4. The scores vary from 25% when 1 criterion is met to 100% when all criteria are met. The four criteria for the qualitative include:

- 1) Are the sources of qualitative data relevant to address the research question or objective?
- 2) Is the process for analysing qualitative data relevant to address the research question or objective?
- 3) Is appropriate consideration given to how findings relate to the context e.g. the setting, in which the data were collected?
- 4) Is appropriate consideration given to how findings relate to researchers influence, e.g., through their interactions with participants?

The four criteria for the quantitative include:

- 1) Is the sampling strategy relevant to address the question?
- 2) Is the sample representative of the population under study?
- 3) Are measurements appropriate (clear origin, or validity known, or standard instrument)?
- 4) Is there an acceptable response rate (60% or above)?

For the mixed methods studies each question is allocated a score based on a yes/no response of each item. The overall quality of a combination of qualitative and quantitative cannot exceed the quality of the weakest components.

The scores for each study included in this review can be found in Appendix 16. An overall low rating was given to 8 studies, five studies were rated as moderate, 3 studies were rated as moderate to high and only one study was rated as high quality. The studies that were rated 'low' quality (n=8) were not clear in how participants were selected or how data was analysed or if appropriate consideration was given to how findings related to their perspective roles and interactions with participants. The studies that were rated moderately (n=5) included some consideration on how findings related to the setting in which the data were collected. These studies included data from a limited population sample. Three studies received a 'moderate-high' rating and one received a "high" rating as they used reliable and valid measures and were clear in terms of selection and how selection bias was minimised additionally there was also an acceptable response rate of 60%.

The lead author rated all papers and a colleague independently rated five (29.4%) of the papers. A high degree of reliability was found between the two raters. The average measures inter correlation coefficients (ICC's) was .966 with 95% confidence intervals from .669 to .996.

## **2.8. Data extraction and synthesis**

There was considerable variation across the studies in the variables measured and the tools used to measure outcomes. The following variables were extracted and inputted into a standardised spreadsheet: author(s), publication data, country the data was collected in, sample size, study design, participant type (those with experience of psychosis, relatives of those with psychosis or the general

population), causal belief measure(s), design (cross sectional or longitudinal/ qualitative or quantitative) and the key findings from each study (A description of included studies is presented in detail in Table 1). Due to the lack of quantitative studies it was not possible to conduct a meta-analysis. Therefore, we examined each study in detail, assessed the eligibility, utilised the quality assessment tool to make sure the studies included in the review were suitable. We then extracted the data and synthesised the findings, exploring for any commonalities and differences across the outcome of each study. The first author (AM) consulted with the other authors to make final decisions about article inclusion where necessary. As the topic represented an understudied area, it was decided that papers with methodological limitations would not be excluded as this may have resulted in the loss of important data. This approach is supported in the narrative synthesis guidelines (Popay, Roberts, Sowden, Petticrew, Arai, Rodgers, et al., 2006). Data were extracted and tabulated for all papers included in the review. In total 17 papers were included in the review. In the patient sample there were eight studies; seven of these focused exclusively on patient samples and one also explored relative perspectives. In the relative sample there were three studies exclusively exploring relative perspectives with one also exploring patient views mentioned in the patient sample studies. Six studies focused on exploring general population perspectives on causal beliefs.

### **3. Results**

#### **3.1. Patient Studies**

In total, eight psychosis patient studies were identified. Five of these studies were conducted in India (Charles, Manoranjitham, & Jacob, 2007; Kulhara, Avasthi, & Sharma, 2000; Saravanan, Jacob, Johnson, Prince, Bhugra, & David, 2007a;

Saravanan, Jacob, Johnson, Prince, Bhugra, & David, 2007b; Johnson, Sathyaseelan, Charles, Jeyaseelan, & Jacob, 2012) with the latter three reporting data on the same sample. Two studies were conducted in England (McCabe & Priebe., 2004; Bhikha, Farooq, Chaudhry, Naeem, & Husain, 2015) and one study was conducted in Sri Lanka (Somasundaram, Thivakaran, & Bhugra, 2008).

We did not identify any previous reviews investigating causal beliefs for psychosis specifically in South Asian populations. During the search process, one systematic review by Bhikha, Farooq, Chaudhry, & Husain, (2012) explored explanatory models of illness for psychosis in developing countries which scoped beyond South Asia. Figure 1 provides a prisma diagram for the selection of eligible studies. The initial search generated 13,025 studies that were reviewed by one author (AM) for relevance. A total of 10,572 articles were excluded primarily because their titles and abstracts revealed that they were not relevant to the research question. The full texts of the remaining articles were read, and a further 38 were excluded for not meeting the inclusion criteria. Reading the bibliographies of the remaining 16 papers generated a further four potential papers and one was included in the review (Tabassum, Macaskill, & Ahmad, 2000).

### ***Study Characteristics and Population***

The majority of the patients in the studies recruited were outpatients from the local department of psychiatry in India ( $n=333$ ). In one study purposive sampling was used to recruit South Asian patients from an early intervention service and community mental health teams ( $n=45$ ) and one study recruited from secondary mental health services (CMHT's  $n=30$ ) in the United Kingdom. Six of the patient studies utilised a mixed methods design, one study utilised a quantitative approach and one study utilised a qualitative approach.

The total number of people with psychosis in the patient studies included in this review was 408. Three of the studies report data on the same sample (Saravanan et al., 2007a; Saravanan et al., 2007b; Johnson et al., 2012). Seven studies reported on the age of participants and the mean age across these studies was 31.7 years old.

***Measurement of causal beliefs across each study included in the review***

Across all the studies a range of six measures were used to identify causal beliefs given for psychosis. Seven of the studies measured causal beliefs with a Short Explanatory Model Interview (SEMI) developed by Lloyd, Jacob, Patel, Louis, Bhugra, & Mann, (1998). This interview is divided into five sections assessing the subject's personal background, nature of presenting problem, help seeking behaviour, interaction with physician or healer and beliefs related to mental illness. The interview is semi-structured; it makes use of open ended questions and also employs the use of probe questions to elicit responses. A section on illness beliefs consisted of three vignettes about a person with a mental health problem including depression, phobia and somatization. Each vignette described the problems faced by the individuals with a particular presentation. This was followed by open ended questions to elicit the subject's attitudes concerning the clinical problem, which attempted to enquire as to whether the subject considers the presentation as a problem and also if they consider it to be an illness. The questions also enquire about causation, possible course of action and the role of a doctor or healer. Each section of this measure was designed to stand alone allowing the interviewers flexibility in the order of the questioning. The qualitative data generated from the SEMI was examined and items that occurred frequently were allocated numerical codes. This allowed for both qualitative and quantitative analysis.

One of the patient studies in the review (Somasundaram et al., 2008) used an unstandardized semi-structured interview which elicited basic demographic information, phenomenological data (the patients experiences and perception of what the experience means for them) and details of the possession ( the authors defined possession as the “episodic experience of being controlled by another spirit or force with the loss of one’s personal identity often manifested in culture-specific, stereotyped movements and behaviour with or without an associated trance state”) and also a mental state examination. Another patient study utilised the supernatural attitudes questionnaire (SAQ) developed by Kulhara et al. (2000) which was specifically constructed for the purposes of the study. It consists of 19 items with yes/no responses. The questions inquire into the individual’s belief in various types of magico-religious influences, the role of such influences in causing mental health problems and the role of treatment, based on such beliefs. A list of supernatural influences that people report on in India were included such as; spirit intrusion, ghost/evil spirits, divine wrath, bad deeds in a previous life, planetary/astrological influences and sorcery/witchcraft.

#### ***Other measures reported in the studies***

The studies also reported the use of additional measures utilised to gather data, these are outlined.

#### ***Psychopathology***

This was measured using the Brief Psychiatric Rating Scale (BPRS) which is a 24 item version commonly used to assess patients with psychosis (Ventura, Nuechterlein, Subotnik, Gutkind, & Gilbert, 2000) and was employed in three of the studies (Saravanan et al., 2007a; Saravanan et al., 2007b; Johnson et al., 2012).



The Global assessment of functioning (GAF) was utilised to assess overall functioning (Endicott, Spitzer, Fleiss, & Cohen, 1976) in three of the studies (Saravanan et al., 2007a; Saravanan et al., 2007b & Johnson et al., 2012)

### ***Insight***

Four studies (Saravanan et al., 2007a; Saravanan et al., 2007b; McCabe & Priebe, 2004; & Johnson et al., 2012) employed the Schedule for Assessment of Insight into psychosis (SAI). It assesses three dimensions of insight, awareness (do you think you are ill?), relabelling of symptoms (how do you explain the belief of hearing voices or seeing images?) and adherence to treatment (does the patient accept treatment or ask for treatment unprompted?), along with a hypothetical contradiction item added to evaluate the persons capacity to consider another's perspective (How do you feel when people do not believe you when you talk about your experiences?)

### ***Causal beliefs in people with Psychosis***

The aims of each study varied, but there were many similarities in the findings and common themes regarding causal explanations of psychosis. The South Asian participants in all eight patient studies had similar explanatory models for psychosis (Charles, Manoranjitham, & Jacob, 2004; Kulhara, Avasthi, & Sharma, 2000; Saravanan et al., 2007a; Saravanan et al., 2007b; Johnson, Sathyaseelan, Charles, Jeyaseelan, & Jacob, 2012 ;McCabe & Priebe, 2004; Bhikha, Farooq, Chaudhry, Naeem, & Husain, 2015; Somasundaram, Thivakaran, & Bhugra, 2008). Six of the patient studies reported data on causal beliefs by utilising the SEMI (Lloyd et al., 1998). The SEMI had been translated into the Tamil language in five of the studies. The studies reported that many patients held specific causal models of psychosis of a spiritual nature. Black magic, evil spirits, punishment by God, previous deeds

and karma (Johnson et al., 2012; Saravanan et al., 2007a; Charles et al., 2004) being the most prominent causal explanations. Saravanan et al. (2007b) reported that the majority of patients held a non-biomedical belief and gave black magic as an explanation for psychosis (73%), however, a significant number (22%) also reported more than one cause. A minority of 12% did not admit to an opinion or cause. They also reported that evil spirits (17.6%), punishment by God (10.7%) and previous deeds (9.2%) were causes of psychosis. The participants were drug naive, experiencing a first episode of psychosis and interviewed at their first contact with mental health services. Therefore, it could be argued that they had not socialised to the biomedical model. These studies were further supported by Kulhara et al. (2000) who also reported more supernatural causal beliefs and found that patients expressed the involvement of sorcery as a cause of their illness (35%). They also reported that 25% attributed the illness to evil spirits and a further 25% attributed their illness to spirit intrusion.

Possession states are commonly seen in developing societies as acceptable cultural phenomena in people without mental health problems as well as those with mental health problems. Possession states were identified as a causal belief in only one of the studies (Somasundaram et al., 2008). Possession was defined as being taken over, controlled or occupied by another spirit or force and results indicated that a high proportion of the sample agreed with possession as a causal belief for their experiences. In total, 73% of those experiencing possession states attributed it to divine forces and over 20% claimed that they were being possessed by a bad spirit or force which was perceived to have a negative effect on them.

Two of the studies (Charles, Manoranjitham, & Jacob, 2007; Johnson et al., 2012) identified that the participants reported multiple and contradictory explanatory

models for the causes of psychosis. Charles et al. (2007) found that the participants gave both spiritual and biological beliefs about the cause of psychosis. Spiritual beliefs were as follows: 32% reported it as karma, 24% reported it to be black magic, 29% reported it was due to evil spirits, and 35% reported it as a punishment by God. However, 32% said it was down to disease, and 60% reported at least one non-biomedical causal belief which included the range of supernatural causes such as karma, black magic etc. This is supported by Johnson et al. (2012) who report that many participants in their studies held specific and multiples causal models of illness at one time including; black magic (73.3%), evil spirits (17.6%) punishment by God (10.7%), previous deeds (9.2%), hereditary factors (0.8%), disease (13.7%) and psychosocial factors (10.7%- Psychosocial factors were not defined in this study).

Two studies McCabe and Priebe (2004) and Bhika et al. (2015) were both conducted in the United Kingdom. They reported similar findings to Charles et al., (2007) & Johnson et al., (2012). The Bhika et al. (2015) study found that the majority of patients (67.7%) cited a supernatural cause for psychosis as their first response. Also 4.4% attributed biological causation and 38% attributed the cause of psychosis to stress mostly from interpersonal relationships. They found that traditional and biomedical models of illness were held simultaneously. These themes were also present in the McCabe and Priebe (2004) study which, found that none of their Bengali participants endorsed biological factors as the primary cause of mental health problems. Instead, 26.9% attributed them to supernatural factors, and 42.3% attributed them to social factors as causation. Both these studies highlight that patients from South Asian heritage who have lived in the United

Kingdom still hold traditional explanatory models about causation of psychotic disorders.

### *Treatment for psychosis*

The majority of the studies reported that participants visit traditional faith healers prior to seeking psychiatric help. Saravanan et al. (2007a) and Kulhara et al. (2000) reported that the majority of the patients in their studies had visited traditional faith healers for help regarding their mental health problems. Also Charles et al. (2007) reported that many of the patients in their study had also visited local and traditional centres of healing, and three quarters of patients reported using at least two systems of medicine and healing. In their study 52% reported visiting temples or other religious places for a cure, 15% went to see a shaman, 21% met with a traditional healer and 95% accessed treatment from a doctor. Johnson et al. (2012) found that patients reported visiting traditional healers as well as going to the hospital. McCabe and Priebe (2004) identified that the participants from Bangladesh were less likely to want treatment of any kind but more likely to want non-conventional forms of treatment including natural remedies and spiritual activities compared to more formal psychiatric treatments. This study also found that the Bangladeshi group gave more supernatural and social explanatory models, compared to the White British group who were more likely to have a biological explanatory model for psychosis. In their study Bhika et al. (2015) reported that 77.7% of patients revealed that they were receiving a combined treatment of prescribed medication as well as seeing a traditional faith healer. In addition, 20% followed a medication only treatment model and 2.2% received herbal treatment from a herbalist and were also seeing a traditional faith healer and taking prescribed medication. Overall, they found that 42.2% of patients held two models of

treatment simultaneously; the traditional and biomedical models. In their study of possession states Somasundaram et al. (2008) reported similar themes of seeking out more traditional faith healers for treatment. They found that half the patients had sought treatment such as religious rituals, exorcism, tying of a charmed thread, prayer, blessing, holy gaze, prior to any psychiatric intervention.

### *The impact of insight on causal beliefs*

Three studies in the review (Saravanan et al., 2007a; Saravanan et al., 2007b, Johnson et al., 2012) highlighted that there appears to be a link between insight and causal beliefs (in this case the ability to recognise one's own mental health problems, recognise the need for treatment and recognising consequences of one's behaviour as a result of the mental health problems). Saravanan et al., (2007a) found that patients with good insight were more likely to employ biomedical causal models which tend to acknowledge that they are ill (such as disease), whereas patients with poor insight are more likely to employ external attributions that illness is related to factors outside the patients control. Saravanan et al. (2007b) reported a relationship between insight into experiences of psychosis and response to the SEMI. Those who endorsed a disease explanation had significantly higher scores on the Schedule for Assessment of Insight (SAI) indicating greater insight. They also found that those who attributed their illness to evil spirits, previous deeds and punishment by God had lower insight scores.

## **3.2. Relative Studies**

### *Study Characteristics and population*

There were four studies (Saravanan et al., 2008; Chakraborty, Das, Dan, Bandyopadhyay, & Chatterjee, 2013; Srrivasin & Thara, 2001; Kulhara et al., 2000) that reported data on relative samples. Two studies have been outlined above

as they included both patient and relative perspectives (Chakarborty et al., 2013; Kulhara et al., 2000). A total of 385 relatives participated in these studies. All were significant others or the main carers for the people who had a diagnosis of schizophrenia. Three of the studies were qualitative designs and one study was a mixed method design.

#### ***How Causal beliefs were measured in each study***

The four patient studies reported each utilised different causal belief measures. Saravanan et al. (2008) utilised focus group discussions conducted in the Tamil language, in India. A discussion guide was developed with items looking at awareness, symptoms, causes, treatment, care arrangement, stigma related to psychosis and perceptions of the status and roles of the “mentally ill” in the community. The researchers introduced the topic by using a case vignette of psychosis and participants were asked to discuss this. Kulhara et al. (2000) utilised the supernatural attitudes questionnaire (SAQ) which was specially constructed for the purposes of the study. It consists of 19 items with yes/no responses. The questions inquired into the individual’s belief in various types of magico-religious influences in general, the role of such influences in causing mental illness and the role of treatment based on such beliefs. A list of supernatural influences that people believe in in India were included such as; spirit intrusion, ghost/evil spirits, divine wrath, bad deeds in a previous life, planetary and astrological influences and sorcery/witchcraft. Chakarborty et al. (2013) utilised an unstandardized measure that was developed specifically for their study. This assessed perceived causes for mental health problems which, were divided into two broad categories; causes inside the body such as bodily pathology, habits/practices and psychological causes and secondly causes outside the body such as supernatural causes. The measure

also looked at patterns of help seeking and this was divided into five categories that were; professional medical help, nonprofessional medical help, religious remedies, alternative medicine and others. Srinivisin and Thara (2001) utilised a family interview schedule adapted from previous measures family members were presented with a list of causal beliefs and asked what they thought was the most probable cause for the mental health problems of the family member, they were also encouraged to mention causes other than the ones listed.

### *Causal beliefs for psychosis: Relatives perspectives*

The aims of each of the studies were similar in terms of understanding the relative's perspectives on the causes for their family member's mental health problems (psychosis). Despite the utilisation of four different methods to collect the data the findings were similar. Kulhara et al. (2000) supported the findings from the patient studies as key relatives endorsed more supernatural causes for psychosis. In their study they found that 15% of the key relatives acknowledged a personal believe in sorcery, 18% in ghosts and evil spirits and 20% in spirit intrusion. Also, 25% of participants reported a link between sorcery and causal explanation for mental health problems, 23% believed ghosts and evil spirits caused mental health problems, 28% believed in spirit intrusion as a cause, 28% reported divine wrath as a cause, 34% attributed planetary and astrological influences on mental health problems and 30% believed the cause was due to retribution for bad deeds in the past. These findings were further endorsed by Chakarborty et al. (2013) who, in their study included the relatives of 62 patients with a diagnosis of schizophrenia. The relatives were able to select a number of reasons for causation for their relative's mental health problems. They found that the majority (96.8%) attributed their family member's illness to supernatural causation. Nearly half (48.4%) of

those respondents also attributed worrying/ thinking as an additional cause and 77.4% endorsed some bodily pathology that included hereditary causation (9.7%) and physical trauma (19.4%). Only a minority (22.6%) gave additional possible causes including habits and practices such as drugs and alcohol (12.9%), or masturbation (6.5%). Similarly, Saravanan et al. (2008) in their focus groups found, that relatives recognised that psychosis was something that was abnormal but, were more likely to see psychosis as the result of karmic deeds, magico-religious influences and family problems. One study reported contradictory findings. Unlike other studies, Srinivisan and Thara (2001) found that psychosocial stress was most often named by the relatives as the sole cause of psychosis. There was a minority of relatives in this study who named organic factors as a cause. Surprisingly attributing the “illness” to fate and, God’s will was the least frequent of all responses and this does not tally with often quoted Indian stereotype of passive acceptance of destiny as a way of life. This sample of participants is reported to have a high level of literacy compared to the general levels in the region, and also this sample had been in contact with the health care services for a longer period which may have had some impact on these findings.

### ***Treatment for psychosis; Relatives perspective***

The relative’s perspectives on the treatment of psychosis were a mixture of traditional and biomedical methods. It has been reported that Indian patients in general use pluralistic approaches to health care whether it is for physical illness or mental illness. The use of religious healers, ayurvedic physicians and prayers, at the same time as taking prescribed medications, is not uncommon (Leslie, 1980). Therefore, this highlights how vital it is that clinicians and professionals take into account individual perceptions and attitudes towards illness.



Sravanan et al. (2008) found that relatives recognised that admission to a “mental hospital” was the first line of management for those who were severely mentally unwell. They also reported that folk healing treatments were considered to be entirely complimentary and not competitive with modern medical treatment and most relatives emphasised temple healing and prayers. The relatives held multiple beliefs about their loved ones problems and the management of these can often be diverse and contradictory. This was supported by Chakarborty et al. (2013) who reported that 58.3% of relatives had sought professional medical help for their family member’s in preference to non-professional medical help (23.3%). In addition relatives reported the use of religious remedies, (15%) and alternative medicine (3.3%) as treatment for psychosis. Kulhara et al. (2000) found that 33% of relatives reported that they had performed religious rituals or other magico-religious rituals that they hoped would alter the behaviour of the patient for the better.

### **3.3. General population studies**

#### *Study characteristics and Population*

There were six studies (Furnham, Raja, & Khan, 2008; Zafar, Syed, Tehseen, Gowani, Waqar, Zubair, et al., 2008; Joel, Sathyaseelan, Jayakaran, Vijayakumar, Muthurathnam, & Jacob, 2003; Jobanputra & Furnham, 2005; Cinnirella & Lowenthal, 1999 & Tabassum et al., 2000) that reported on data from the general South Asian population on their causal beliefs of psychosis. There was a total of 1249 people from the general population that participated across the studies included in the review. Five of these studies (Cinnirella & Lowenthal, 1999; Joel et al., 2002; Jobanputra et al., 2005; Zafar et al., 2008; Tabassum et al., 2000) were qualitative and one study used a quantitative design (Furnham et al., 2007).

### *How causal beliefs were measured*

All six of the studies employed a variety of measures to elicit causal beliefs from the participants many of which were unstandardized. Joel et al. (2003) utilised the Tamil version of the SEMI, which was also employed in many of the patient studies reported in this review. Jobanputra et al, (2005) developed a questionnaire and semi-structured interviews (unstandardized) consisting of demographic information with questions related to health beliefs and their beliefs concerning health, illness, causes and recovery. Another study (Zafar et al., 2008) developed an unstandardized questionnaire which was divided into three parts. The first focused on demographic data, the second on a case scenario asking for participants for their views of a reason for the person's behaviour choosing from a list of 22 choices. The third part asked them to state their reaction if a family member or someone close to them exhibited such behaviour from a list of 15 treatments to consider. Tabassum et al. (2000) also employed an unstandardized interview schedule consisting of 21 statements relating to various aspects of mental health, and covering a range of questions including, their perception, treatments and help seeking for mental health problems. Cinnirella and Lowenthal (1999) conducted semi-structured interviews guided by an interview schedule that assessed perceptions about the symptoms of schizophrenia, ideas about the causes of schizophrenia and possible treatments. Another study employed a 62 item questionnaire that assessed beliefs about the nature, causes and aetiology of schizophrenia, this measure was not a standardised measure but had been developed using previous questionnaires and items that were specifically constructed for this study (Furnham et al., 2008).

### *Causal beliefs for psychosis: General population perspectives*

The aims of the studies were similar in terms of understanding the causal beliefs of psychosis. Some studies collected data on social networks, home life, employment and beliefs about the function of hospitals and society with regards to mental health problems. Cinnirella and Loewenthal (1999) recruited the sample from specific geographical areas that had a cluster of target religious/ethnic groups, which included White Christians, Pakistani Muslims, Indian Hindus, Orthodox Jewish and Afro-Caribbean Christian. They found that 15.38% of the sample felt religion could actually play a causal role in schizophrenia, the majority of these respondents being Muslim, who proposed a lack of faith and failure to pray regularly as a cause. They also reported that there may be intergenerational differences within the Asian community with the younger respondents feeling that the older members might adopt more religious and spiritual explanations of mental health difficulties compared to the younger members. Furnham et al. (2008) assessed medical student's beliefs about schizophrenia with three groups Pakistani, British and British Pakistani. They found that the Pakistani participants favoured more sociological explanations such as: rejection from family and friends at an early age, parents with inconsistent behaviour and societal pressure causing schizophrenia. The study also reported that the Pakistanis were more likely than the British and British Pakistanis to believe that people with schizophrenia were dangerous and unpredictable, as well as having the greatest tendency (even though this was limited) to use superstitious beliefs to explain the cause of schizophrenia than the other two groups. However, all three groups rejected only supernatural causal explanations, although the British Pakistanis had the greatest tendency to believe in seeking help from God, they associated this with their religious beliefs rather than any supernatural causes. The British Pakistanis shared the causal beliefs of the

British group, demonstrating the fundamental influence of western values on the belief systems adopted by this group. Zafar et al. (2008) found that there were multiple explanatory models given for psychosis. They found that 22.3% reported it to be due to a mental illness, 13.6% thought it was due to a weak mental constitution, 10.1% thought it was God's will, 38.4% reported biological cause, 15.6% reported religious cause, 13.4% said it was due to personality issues and 12.1% believed psychosocial stressors to be the cause. Also 8.4% stated that other social issues such as loneliness and bad upbringing to be a cause of psychosis. The majority of people held superstitious beliefs, of which the majority attributed psychosis to black magic. It is interesting to note that both Furnham et al. (2008) and Zafar et al. (2008) found multiple beliefs as possible causation for psychosis. Jobanputra et al. (2005) found in their study that the older Indian immigrants were significantly more likely to endorse beliefs about health and illness in relation to supernatural factors than the younger Indian immigrants. Joel et al. (2013) in their study with community mental health workers reported a wide variety of local beliefs regarding mental health problems and a significant proportion reported black magic, evil spirits and poverty as a cause of psychosis. They found the community health workers attributed causal beliefs for psychosis to psychological (46.3%), disease (35%), black magic (40%), evil spirits (28.8%) and 52.5% attributed it to poverty. Tabassum et al. (2000) conducted in depth interviews and found that 25% of the sample felt the causes of psychosis could be due to supernatural or hereditary causes and, could be attributed to stress at home or punishment from God due to sins.

### *Treatment for psychosis; General population perspective*

In their study, Furnham et al. (2008) found that the Pakistani group identified faith healers as a source of care and treatment and were significantly more likely than the British and British Pakistanis to consider seeking help from faith healers. Zafar et al. (2008) reported that 40.6% would go to a psychologist or take a relative to a psychologist to manage the condition, 19.3% would look at religious remedies and 3.0% would look at supernatural treatments. Jobanputra et al. (2005) reported that the older and younger Indian immigrants reported that they would look to alternative healing than the younger and older Caucasian participants. Joel et al. (2013) in their study reported that 23.8% of the participants stated that they would go to a doctor and 17.5% said a doctor cannot help those with psychosis. The majority of participants (87.5%) held non biomedical beliefs and reported that prayers and visiting temples would be the preferred treatment. Tabassum et al. (2000) report in their study that 35% of participants reported that faith healers were the preferred treatment for those who were mentally unwell. In this study, 40% of the males and first generation females would go to faith healers for treatment; this number was reduced for second generation females. These findings were similar to Cinnirella and Lowenthal (1999) who reported that the older generation were more likely to endorse religious strategies for treatment than the younger generation (these are similar to the findings from Jobanputra et al., 2005). They also found that 51.9% of their sample reported that a holy person might help if a person is experiencing symptoms of schizophrenia. This study also found that the Muslim group more than the other groups who identified themselves as being Christian, Jewish or Hindu felt that religion could be a source of treatment for mental illness, followed by the Hindu group. This is similar to Ciftci, Jones, & Corrigan, (2013)

who found that some individuals from Pakistani Muslim backgrounds sought support from faith healers before seeking any medical support.

#### **4. Discussion**

Overall, the results of the review revealed that causal beliefs for psychosis were similar across the three populations explored, with supernatural causation being the most prevalent causal belief for psychosis and black magic being cited by the majority of respondents. The findings also indicated that all three populations can hold multiple causal beliefs for psychosis simultaneously, these include: supernatural/religious/cultural beliefs, biomedical and psychosocial. These findings support previous studies (Conrad, Geiser, Schilling, Sharif, Najjar, & Liedtke, 2007; Sayre, 2000). In the patient studies despite the majority of participants holding supernatural causal beliefs, there was a significant number who reported having more than one causal belief for psychosis. Also some respondents did not report any opinion or causal belief, the reasons for which were not outlined in the studies making it unclear why they did not respond. This maybe because they were unsure about cause or they did not wish to talk about mental health problems for fear of stigma or shame, it is difficult to make any firm conclusions due to limited data. It is important to note that we looked at three distinct participant groups. The participants in the patient studies appeared to have had limited education. The relative group also had limited educational backgrounds however; they had strong beliefs that could have impacted on the patient's causal beliefs. This is compared to the general population sample that included medical students and health care workers who had more understanding of bio/psycho/social models and causes of illness. One of the studies in the patient sample explored possession states, which are becoming increasingly common in developing societies as acceptable cultural

phenomena, in both those with mental health problems and those without. Further research in this area would need to focus on why it is deemed acceptable and less stigmatising to be in a possession state. It is of interest that, none of the studies in this review included the researcher's views on their causal beliefs and, if these influenced the assessment process in anyway. Also the relationship of the researchers to the patients was not included as it would have been useful to know if the researchers, were involved in the care of the patients thus inadvertently influencing the patient's causal beliefs.

A recent systematic review conducted by Carter et al. (2016) looked at the impact of causal explanations on outcomes for people experiencing psychosis. They reported that although the majority of studies found participants had a 'preferred' causal belief, many commented on the presence of competing and contradictory beliefs. Although supernatural beliefs were widely held there is evidence from this systematic review that the South Asian population also hold multiple and sometimes contradictory beliefs (Srinivisin & Thara, 2001). These findings are supported by earlier mentioned studies (Furnham et al., 2007; Zafar et al., 2008). Some of the studies were conducted with people from rural parts of India belonging to more traditional societies and who had not been in contact with services previously and were naive to the biomedical model. Conversely, traditional more rural societies have a slower pace in social change compared to more modern and urban societies (Lauber & Rossletr, 2007). Traditional societies in India are often characterised by familial orientation, low education and poor economic development. Therefore, stigma of mental health problems has an influence on the entire familial or group system and as a consequence, denial and somatisation are used to relieve the family of stigma, therefore seeking more modern treatments may

not be an option (Ng, 1997). Despite psychiatric services in India being better organised in the towns and cities, some patients have reported to consult psychiatrists for their symptoms, but many drop out within a few months (Chakarborty et al., 2013). One particular reason for disengagement from treatment and care has been reported to be the causal beliefs held by patients and the lack of understanding about their causal beliefs by the treating mental health professional (Grover, Kumar, Chakrabarti, Hollikatti, Singh, Tyagi, et al., 2012).

One of the interesting relationships noted in two studies assessed insight and its impact on causal beliefs (Saravanan et al., 2007a; Johnson et al., 2012). They suggested that those who scored as having higher insight into their illness endorsed a disease explanation and those who scored as having lower insight attributed their illness to more supernatural causes. Goldberg, Green-Paden, Lehman, & Gold, (2001) reported that ethnic minorities are more likely to be rated as having poor insight into their illness, this may be because the very notion of insight conflicts with the idea of their supernatural causal beliefs. Insight is reported to be a complex multidimensional construct. It is composed of three distinct overlapping dimensions which are: recognition that one has a mental illness, compliance with treatment, and the ability to relabel unusual mental events such as delusions and hallucinations as pathological (David, 1990). All these factors are influenced by social constructions of illness and culturally specific explanatory models (Amador, Strauss, Yale, Flaum, Endicott, & Gorman, 1993). It is interesting to note that the questions that form part of the insight measure utilised in the studies included in the review namely the SAI-E are positively associated with biological explanations and adherence to treatment and not with any spiritual and religious explanations. Other measures of insight such as the VAGUS scale and clinical interview (Gerretsen,



Remington, Borlid, Quilty, Hassan, Polsinelli, & Pothier, 2014) as well as the Becks Cognitive insight Scale (Beck, Baruch, Balter, Steer, & Warman, 2004) and Birchwood Insight scale (Birchwood, Smith, Drury, Healy, Macmillan, & Slade, 1994) also focus on biological explanations and treatments. Insight is considered to be a person's ability to reflect on their experiences of psychosis such as hearing voices as signs and symptoms of their mental health problems therefore, this very concept of insight being assessed is confounded with causal beliefs people give for psychosis. The reason being that there is an overlap of the definition of insight with causal beliefs; it is the extent to which someone agrees with culturally dominant perspectives of psychosis. For example the current measurements outlined above of insight into mental health problems focus entirely on the biological and psychosocial model of illness, with good insight corresponding with an awareness of illness and acceptance of medical treatments. These measures do not consider locally and culturally (including religious and spiritual factors) relevant attributes and help seeking as a measure of insight (Jacob. 2016).

The specific causal beliefs given for psychosis across the studies were black magic, evil spirits, previous deeds and karma; the overarching theme was of a non-biomedical belief model. This is similar to other findings that have reported a clear preference for psychosocial or spiritual interpretations over biological beliefs (Carter et al., 2016). The studies that reported multiple explanatory models in India included people who were from well-educated and urban areas who had previously accessed mental health services. Also the studies conducted in the UK found that even though traditional and biomedical models of illness were held simultaneously, supernatural causes of illness were still prevalent and, people continued to hold these beliefs despite living in the UK. Treatments for psychosis across the studies

highlighted that the majority of people preferred to visit faith healers or holy men than doctors or mental health professionals. The studies of the relative population highlighted their preference for supernatural causation and the result of karmic deeds. They too held multiple causal models. The general population reported similar results to the other two population samples and reported supernatural and spiritual factors for psychosis. However they also believed that religion played a central role in schizophrenia and its cause, as it was a punishment from God for sins committed (this was more prominent in the religious groups). They also highlighted multiple explanatory models and multiple treatments from faith healers to psychologists. The relative and general population studies had limited literature and thus unable to offer a more definitive comparison.

The findings from the studies suggest that people can hold separate and paradoxical beliefs simultaneously, enabling them to make sense of the illness. These could be a combination of non-medical (supernatural, psychosocial and biological) explanations as reported in Charles et al., 2007; Das, Saravanan, Karunakaran, Manoranjitham, Ezhilarasu & Jacob, 2006; Joel et al., 2006; Saravanan et al., 2007b). Having particular explanatory models of illness can in turn lead to a preference for a particular treatment, Weiss, Sharma, Gaur, Sharma, Desai, & Doongaji, (1986) reported that those who held more supernatural or spiritual explanatory models were more likely to visit traditional faith healers. Bhika et al. (2012) reported those who held multiple explanatory models were likely to seek different forms of treatment. Similar results have been reported in studies from various physical illnesses (Manoharam, John, Joseph, & Jacob, 2001; Nambi, Prasad, Singh, Abraham, Kuruvilla, & Jacob, 2002) and mental health problems (Joel et al., 2003). Holding multiple causes and treatment beliefs for chronic

conditions and seeking diverse treatments may hold an advantage, allowing patients to seek treatment from diverse sources. Findings also reinforced evidence by Cochrane and Sashidharan (1996) that the use of traditional healers was done in conjunction with mental health services and not in place of them. It can be suggested that where there is a choice of two forms of treatment, one that works within their cultural and religious frames of reference and another that appears to contradict this, then it is clearly possible that one will be seen to be less helpful. Studies have shown that patients with mental health problems prefer to visit local faith healers before seeking help from medical professionals. The reason for the popularity of native healers is that they are easily accessible and available, and they provide culturally sensitive care (Shankar, Saravanan, & Jacob, 2006). In many of the developing Asian countries mental health problems are commonly considered 'non-medical diseases' that are caused by an invisible, abstract element and supernatural forces. Thus, they are thought to be the domain not of doctors, but of traditional healers (Razali, Khan, & Hasanah, 1996; Thong, Carpenter, Krippner 1992; Trivedi & Sethi, 1979). Another reason to seek help from faith healers and traditional healers is that the religious healers are present in greater numbers and it is easier and cheaper to seek help from them (Kurihara, Kato, Reverger, & Tirta, 2005; Trivedi and Sethi, 1979) than seeking help from modern treatment centres. Two of the studies in the review examined causal beliefs for psychosis in the UK (McCabe & Priebe, 2004; Bhika et al., 2015). These studies are a good indication that the traditional belief models are still widely held in South Asian populations despite living in the UK. This maybe because beliefs and rituals that people are accustomed to are a key component of an individual's cultural identity, something they wish to hold onto (Bhugra & Becker, 2005). McCabe and Priebe (2004) found

that those administered the SEMI in a follow up study after a year did not identify or even have similar explanatory models. This suggests that explanatory models are unstable and changeable over time and depend on the individual, their cultural world and their circumstances, which support Kleinman's (1980) earlier research.

It is also interesting to note that NICE guidelines recommend antipsychotic medication and Cognitive Behavioural Therapy (CBT) as the treatment of choice for schizophrenia and this may create some tension between the care that is offered in the UK and the traditional causal beliefs held by the South Asian population living in the UK. Therefore clinicians working within the Western models of care need to be mindful of these differing cultural perspectives. A recent study has shown the feasibility and success of offering brief, culturally adapted CBT for psychosis along with medication (Naeem, Saeed, Irfan, Kiran, Mehmood, Gul, & Farooq, 2015).

All the studies reported supernatural beliefs as being possible causal explanations for psychosis however this term included many different types of beliefs from black magic to the will of God to planetary and astrological factors. This needs to be explored further, to examine the different types of beliefs that are prevalent in certain regions of South Asia and if this is associated with the mental health provisions available in that particular area. The studies in the review focused specifically on Northern India where perhaps such supernatural beliefs are prevalent, exploration of other regions may provide further understanding. Furthermore within the South Asian populations there are many subgroups such as religion that can be explored to investigate if causal beliefs differ between different religious groups i.e. Muslims, Hindus, Christians Sikhs or Buddhists.

It is also important to note that the average age of the patients with psychosis in the studies was 31.7 years, which is considerably higher than the average age of onset that is reported to occur predominantly in adolescence. This may be partly due to people presenting to services later in life when more traditional methods of treatment have not worked. The literature on this however is limited and warrants further investigation.

The literature in South Asian populations and their causal beliefs has had limited attention and is crucial when there are over 3 million people of South Asian descent living in the UK and the demographic data indicates they are the least likely, in both the general population and other ethnic minority groups, to access mental health services (Sheikh & Furnham, 2000).

#### **4.1. Limitations**

A number of methodological issues were identified in the studies included in the review. Firstly, due to the limited number of studies available in this area of research the study team agreed to retain all studies, including those of low quality which is a limitation of this review. Secondly, the majority of the studies included were cross sectional which makes it difficult to make any firm conclusions about causal beliefs that South Asians give for psychosis and to conclude if these remain stable over time. There was only one study that was a longitudinal study based over a 5 year period which suggested this was not the case. Thirdly, the measures used to assess causal beliefs were diverse based on their techniques and purpose. Some of the studies utilised unstandardized measures developed specifically for the individual studies resulting in weak methodologies of these studies. This not only raised issues with the reliability and validity of the measures but also made comparisons between studies difficult, especially those conducted in South Asian

countries that specifically measure distinct beliefs such as spiritual and biogenetic factors. The complexity of causal beliefs has raised disagreements between authors about how these beliefs should be measured, with some stating that quantitative approaches do not fully capture peoples understanding. In this review it is possible that some papers may have been missed due to the search terms used as causal beliefs are referred to in various ways in the literature. In addition, the search was limited to English language articles only, and the inclusion and exclusion criteria may have removed relevant studies. This may have been problematic for the current review because we were focused specifically on South Asian populations therefore there may have been studies published in languages other than English that could have been missed. A further limitation was that the data was collated from a majority of Indian studies and came from the same region: Tamil Nadu in the district of Vellore, which is described as one of the most literate and educated states in India. This may have some bearing on the causal beliefs people reported and therefore, is only representative of a specific region/country. Further research needs to be conducted in broader areas. In Pakistan and Sri Lanka the literature is scarce and in Bangladesh the literature is limited even further.

## **5. Conclusion**

As there was a lack of data on this particular topic area, any conclusions reported in this review must be read with caution and more research needs to be conducted before any definitive assumptions can be made. The traditional notion of cultural, religious and supernatural explanatory models still hold true from those who suffer from psychosis, their relatives and the general population within a South Asian population. However, there is literature emerging that suggests people hold

multiple explanatory models and the role of traditional treatments are complimentary to the more biomedical treatments.

## **6. Summary**

Previous findings suggest that depression, anxiety and unexplained somatic symptoms are not considered as mental illness in many societies. The varying cultural models of illness (Kleinman, 1980) attributes such conditions to life events, fate, supernatural causes and physical diseases and therefore reduces actual demand for mental health care. Belief about causation of psychiatric disorder determines help seeking behaviour (Zafar et al., 2008). Therefore, a belief regarding supernatural causation of illness will promote help seeking from traditional means whereas biological and psychosocial causation about psychiatric disorder will favour help seeking behaviour from a professional (Jorm, 2000). The papers in the review have reported similar findings on the causal beliefs for psychosis of three South Asian groups; patients, their relatives and the general population. There was a clear preference for supernatural and psychosocial over biological beliefs. There are some studies from India which have evaluated the explanatory models of patients presenting with common mental disorders (Shankar et al., 2006), depression (Pereira, Andrew, Pednekar, Pai, Pelto, & Patel, 2007; Kermode, Bowen, Arole, Joag, & Jorm, 2009), post-partum depression (Savarimuthu, Ezhilarasu, Charles, Antonisamy, Kurian, & Jacob, (2009). These also show that many patients have non-medical causal models of illness, this is supported by findings that suggest that upon exploring causal explanations for depression in South Asians, karma and past deeds were consistently reported as a causal belief (Grover et al., 2012).

These findings support other populations studies which have consistently reported a preference for environmental over genetic causes of mental health problems in the general population (Angermeyer & Dietrich, 2006).

## **7. Clinical implications/further research**

South Asian communities are said to attach greater stigma to mental illness than do White British communities (Cartwright & Anderson, 1981) thus inhibiting individuals from seeking professional help for mental health problems. This supports the early literature that suggests there are often high rates of hospital admissions for South Asian groups (Thomas et al., 1993). This maybe because of the poor contact they have with primary care services or hospital services prior to admission. This may delay treatment and increase the severity of their mental health problems. This highlights that reducing the duration of untreated psychosis (DUP) is crucial for improving outcomes as those living in rural areas who share supernatural beliefs with their family may be at higher risk of not seeking help early for psychosis ( Marshall, Lewis, Lockwood, Drake, Jones, & Croudace, 2005 & Boonstra et al., 2012). Further research into investigating DUP in South Asian communities is warranted to understand the impact of this further.

There is limited literature that has explored more culturally adapted approaches that incorporate the role that supernatural beliefs play in treatment or engagement with services. Johnson and Nadirshaw (1993) reported that in East London, services have successfully incorporated the use of traditional healers dealing with physical and spiritual problems (hakims) into hospital and community-based services indicating positive outcomes. However, this is an area that needs further research and development with particular focus on psychosis. Also the evidence base for the benefits of faith healing is limited and warrants further scrutiny.



Application to South Asians may be complicated by the impact of individual beliefs around symptoms and mental health problems perceptions, particularly in Asian communities; the word 'psychosis' has no direct translation in some Asian language and the lack of linguistic equivalents for psychosis may result in conceptual differences between cultures being compared and may, in turn, confound any conclusions drawn (Bhui & Bhugra, 2001).

Also there needs to be a more structured standardised and culturally sensitive process of assessing causal beliefs in order to explore them so the research can be comparable. In addition exploration of the causal beliefs of professionals, and young people who have been in contact with mental health services would be vital to further our understanding, as there is limited literature for these groups in this specific population. Exploring religious groups within the South Asian population and the different traditional faith healers views on causality of psychosis may provide further answers and help support mental health professionals to develop culturally sensitive and appropriate treatment and care. Furthermore, the impact of education (both general and specific to mental health problems), living in urban or rural areas and religious beliefs on causal explanations for psychosis, warrant further investigation.

## **8. Disclosure**

The authors report no conflict of interest

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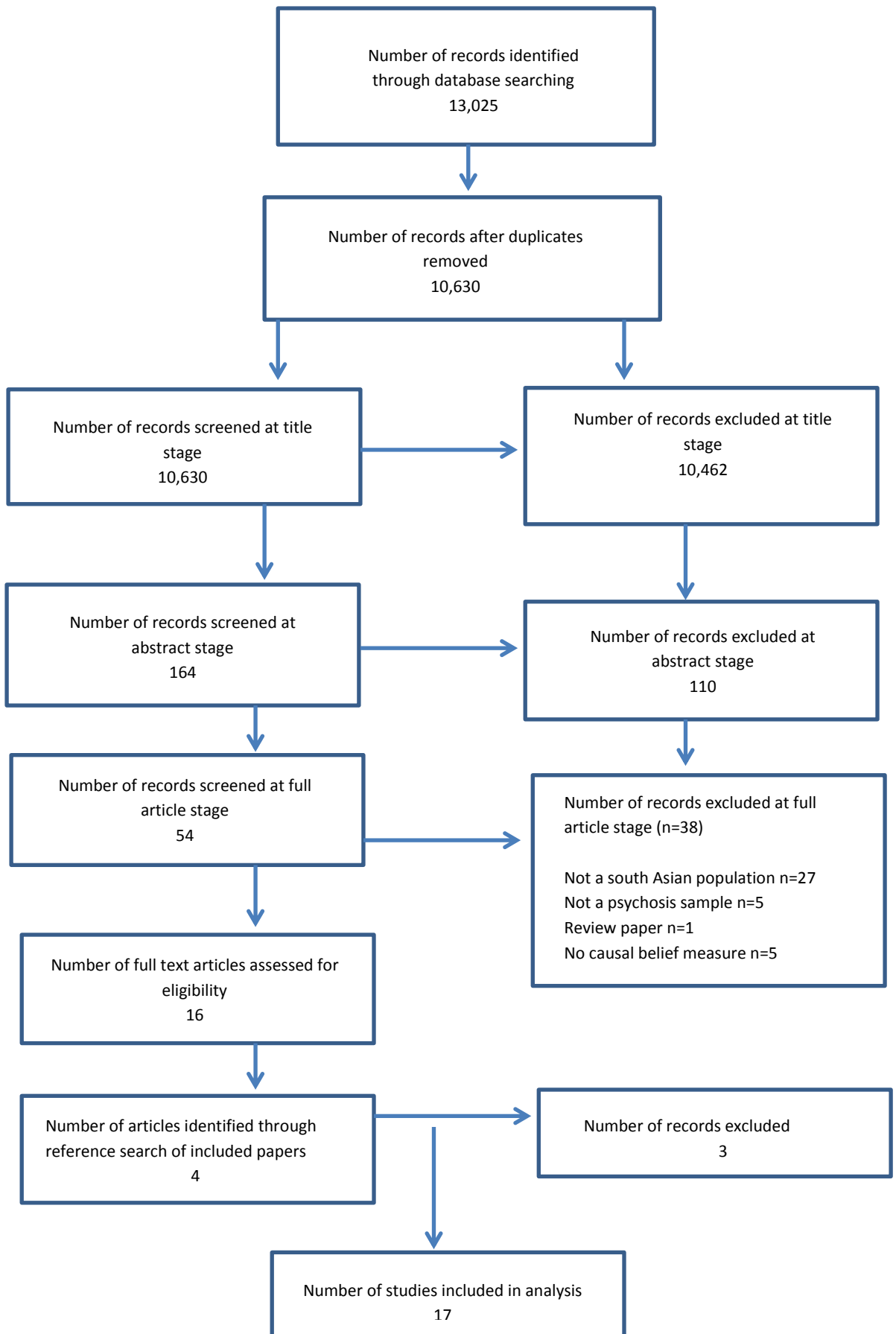
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**Figure 1: PRISMA diagram for search strategy**



**Table 1:** Table of characteristics of studies included in the review (n=17)

	Patient psychosis sample							MMAT Scores
	Location	N	Mean age	Design	Causal belief measure	Measure of outcome	Key findings (causal model preferred)	
Charles et al. (2007)	Vellore, India	100	32.95	Mixed methods	SEMI	CESQ Family views on stigma questionnaire PANNS	The patients were interviewed using the SEMI, the CESQ, the PANNS and a questionnaire that recorded socio demographic and clinical details. The relatives of patients were interviewed using the SEMI, The family views on stigma questionnaire and the scio-demographic questionnaire. Three quarters of those who participated used at least 2 systems of medicine/healing. The causes the patients gave for illness were: 32% said it was karma, 24% said it was black magic, 29% said it was evil spirits, 35% said it was a punishment by God and 32% said it was down to disease, 60% reported at least one non-biomedical causal belief. With regards to treatment; 52% reported visiting temples or other religious places for a cure, 15% went to see a shaman, 21% met with a traditional healer and 95% visited a doctor for treatment.	50% (Moderate Quality)
Bhika et al. (2015)	London, Britain	45	No age reported	Qualitative	SEMI	SEMI	The majority of patients (67.7%) cited a supernatural cause of their illness as their first response. 4.4% attributed biological causation (38%) attributed the illness to stress mostly from interpersonal relationships. With regards to treatment, 77.7% revealed they were receiving a combined treatment of prescribed medication as well as seeing a traditional faith healer. 20% followed a medication only treatment model. The study reports that multiple models of illness are held simultaneously by patients.	100% High Quality



	LOCATION	N	Mean age	Design	Causal belief measure	Measure of outcome	Key findings (causal model preferred)	MMAT Scores
McCabe & Priebe (2004)	England	N=119, 30= Afro Caribbean 30= Bangladeshi 29 =west African 30=UK White	Bangladeshi = 30.6	Mixed Design	SEMI BPRS SAIMANSA PCSQ, HLC	Modified version of the SEMI	The White British cited biological causes more than the other 3 groups. Bengali participants gave 0% to biological factors being the primary cause of illness and 26.9% to supernatural factors. With regards to treatment Bangladeshi's less likely to want treatment of any kind but more likely to want non-conventional forms including, natural remedies and spiritual activities.	75% (mod-high Quality)
Saravanan et al. (2007b)	Vellore , Tamil Nadu India	131	29.5	Mixed methods design	SAI-E SEMI BPRS GAF	SEMI	Majority of patients held a non-biomedical belief (black magic as an explanation for psychosis (73%) however a significant number 22% also reported more than one cause. They reported evil spirits (17.6%) punishment by God (10.7%), previous deeds (9.2%), and psychosocial factors (6.1%). Also 70% of patients attributed schizophrenia to spiritual and mystical factors.	50% (moderate quality)
Saravanan et al. (2007a)	Vellore, Tamil India	131	29.5	Mixed methods	BPRS GAF SEMI SAI-E	SEMI	This study highlighted the link between insight into their illness and response to the SEMI they found that those who endorsed a disease explanation had significantly higher scores on the SAI-E indicating greater insight. Those who attributed their illness to evil spirits, previous deeds and punishment by God had lower insight scores. The majority of patients considered spiritual and mystical factors as the cause of their predicament.	50% (moderate quality)
Johnson et al. (2012)	Vellore, Tamil Nadu, India	131	29.5	Mixed method design	SCID-P SAI-E BPRS SEMI GAF PANSS WHODASS	SEMI	This was 5 year follow up study. The reduction of psychotic symptoms and improved functioning during the first year of treatment is associated with an increase in the use of disease explanations and a marked reduction of causal non-medical beliefs. However, the number of people subscribing to disease explanations tends to plateau with only about half the subjects preferring it at 5 years. The association of insight and non-medical explanatory models to long term outcome later in the course of illness suggests that explanatory models are coping mechanisms rather than being causally related to outcome.	25% (low quality)

	LOCATION	N	Mean age	Design	Causal belief measure	Measure of outcome	Key findings (causal model preferred)	MMAT Scores
Kulhara et al. (2000)	North India	40 relatives	32.4	Quantitative	PSE-9 SAQ	SUPERNATURAL ATTITUDES QUESTIONNAIRE (SAQ)	They study found that 15% believed in sorcery, 18% in evil spirits, 20% in spirit intrusion. Also 58% believed that carrying out magico-religious rituals would help make them better. The majority of the patients had undergone this magico-religious treatment prior to seeking any psychiatric help. Relative data: This supported the findings from the patient studies as key relatives endorsed more supernatural causes for psychosis.	75% (High quality)
Somasundaram. (2008)	Sri Lanka	N=90 inpatients at a psychiatric unit in whom possession experiences have occurred N=30 psychosis patients N=hospital patients N=30 Community patients	35	Mixed Design Descriptive cross sectional study Semi structured questionnaire and clinical observations	Semi structured questionnaire and interview Vignettes A questionnaire was administered to the 30 patients and compared to two other population groups that had experienced possession states.	Semi structured questionnaire and interview Vignettes	The majority of those experiencing possession states across all the groups attributed it to divine forces. Overall 46% people experiencing possession states had not sought any form of treatment with 44% denying any need for it. Half of the patients had sought traditional treatments such as religious rituals/exorcism/ charmed thread/ elimination of evil objects.	25% (Low Quality)
<b>Relative sample of patients with Psychosis</b>								
Chakarborty et al. (2013)	West Bengal, India	120 (62 schizophr enia)	32.82	Quantitative	Questionnaire for exploring perceived cause of illness Questionnaire for assessing pattern of help seeking	Questionnaire of beliefs about causes of psychosis	They found that the majority (96.8%) attributed their family member's illness to supernatural causation and the majority sought non-professional medical help and preferred religious remedies to help their relatives.	25% (low quality)

	LOCATION	N	Mean age	Design	Causal belief measure	Measure of outcome	Key findings (causal model preferred)	MMAT Score
Srinivasan & Thara. (2001)	Chennai, India	N=254 families of patients with chronic schizophrenia	Patients- 34.2 family member age not given	Qualitative interviews	Patients living with family included. A key relative of the patient was interviewed. A list of possible causes was provided.	Family interview schedule	They found the opposite of the stereotyped notion that beliefs in supernatural causes are widely prevalent in non-western societies. They found that psychosocial stress was most often named by the relatives as the sole cause by many of them only 12% gave a supernatural causal belief. A minority of relatives in this study named organic factors as a cause.	75% (mod-high Quality)
Saravanan et al. (2001)	Tamil Nadu, Vellore, India	N=57 General public 28 relatives of patients with psychosis 29	General public- 43.93 mean age Relatives= 48.10	Qualitative	9 focus groups were run over 3 months.	Focus group interviews about causes of illness	Sample of relatives of people with psychosis and community members found that both groups recognised psychosis as abnormal. The participants were more likely to see psychosis as the result of karmic deeds, magico religious influences and family problems Also both groups recognised admission to hospital as the first line management but both groups were aware of folk healing treatments and considered these to be entirely complimentary and not competitive with modern medical treatment. The relatives emphasised temple healing and prayer. The study highlights that people can simultaneously hold models of illness that are diverse and contradictory	25% (Low Quality)
<b>General population sample views on Psychosis</b>								
Cinnirella & Loewenthal, (1999)	England	N=52 female	No age reported	Qualitative interview In the sample 9= Indian, Hindu and 13 were Pakistani Muslim	Tape recorded interviews were conducted. The questions focused on perceptions of the symptoms of schizophrenia, ideas about causes and possible treatments.	interviews	The use of religious coping strategies were perceived to be effective in the face of those who experience symptoms of schizophrenia, this varied amongst those interviewed. Praying was perceived as particularly effective among the Pakistani Muslim group. It was reported that the older generation were more likely to endorse religious strategies for treatment than the younger generation. They also found that 51.9% of their sample reported that a holy person might help if a person is experiencing symptoms of schizophrenia.	50% (Moderate Quality)

	LOCATION	N	Mean age	Design	Causal belief measure	Measure of outcome	Key findings (causal model preferred)	MMAT Score
Furnham et al.(2008)	Britain and Pakistan	N= 305 2 <sup>nd</sup> & 3 <sup>rd</sup> years 100 British 155- Pakistani living in Pakistan, and 50 British Pakistanis living in the UK.	20.4	Quantitative (questionnaire)	Participants were administered a questionnaire comprising of 62 items concerning their beliefs about the nature, causes and aetiology of schizophrenia	62 item questionnaire about beliefs of the cause and aetiology of schizophrenia	Pakistani and British Pakistanis rated their community as unhelpful towards those suffering from schizophrenia. There were significant differences between groups regarding general beliefs about schizophrenia and there were significant differences between the groups on treatment, by seeking help from God and other supernatural methods The Pakistanis were more likely than the British and British Pakistanis to believe that people with schizophrenia are dangerous and unpredictable. They also had the greatest tendency to use superstitious beliefs to explain the cause of schizophrenia.	25% (Low quality)
Joel et al. (2003)	Vellore India	N=80 community health workers	48.2	Qualitative (SEMI)	The SEMI was administered and a verbatim recording of the responses was made. The responses were later regrouped into categories	SEMI	A significant proportion of health workers did not recognise psychosis as a disease condition. They reported a wide variety of local beliefs regarding mental health problems and a significant proportion reported black magic, evil spirits and poverty as a cause of psychosis. It was reported that 17.5% believed doctors could not help.	25% (Low Quality)
Tabassum et al. (2000)	England	N=74 (22 males, 29 first generation females, 23 second generation females)	No age reported	quantitative	All participants were interviewed using an interview schedule, which was translated into Urdu and Punjabi.	Interview based on 21 statements relating to various aspects of mental illness	Exploration of opinions about the likely causes of mental illness were similar across gender and generation. Stress at home was reported as being the most frequently selected factor for causation. It was reported that 27% selected supernatural forces as a possible cause, although 1 male stated this belief was more prevalent in Pakistan than in the UK. The participants reported that there was a willingness to interact on a superficial level with someone with a mental illness but no one was willing to marry someone with a mental illness. Also 40% reported that they would go to faith healers from the first generations interviewed but this figure reduced for the second generation South Asians interviewed.	25% (Low Quality)

	LOCATION	N	Mean age	Design	Causal belief measure	Measure of outcome	Key findings (causal model preferred)	MMAT Score
Jobanputra & Furnham. (2005)	England	N=334 British Caucasian 2 AGE GROUPS 18-34 and 35-86 British Indian immigrants 18-34 and 35-86	BC-18-34 =27.08 BC-35-86 =48.07 BI- 18-34 =25.19 BI-35-86 =50.5	Qualitative Questionnaires	Questionnaires administered and generally took between 15-30 minutes to complete	SEMI-STRUCTURE D QUESTIONNAIRE-looking at beliefs about health and illness and recovery.	The reported that in their study the older Indian immigrants and younger Indian immigrants were significantly more likely to endorse beliefs about health and illness in relation to supernatural factors than the White British group.	25% (Low Quality)
Zafar et al.(2008)	Pakistan	N=404 general population?	31.35	Cross sectional Qualitative? questionnaire	The study was conducted in the waiting areas of the community health centre, consulting clinics and inpatient family waiting areas in a hospital.	Questionnaire including case scenarios	In the study 30% of participants attributed mental illness as the main cause of psychotic symptoms and 32% thought it was the will of God. Religious inclination and beliefs about the cause were significantly associated with the help seeking behaviour of participants	25% (Low Rating)

**Paper 2: Cultural differences between White British and South Asians in Causal Beliefs about Psychosis in a healthy adolescent general population sample**

This Paper has been prepared for submission to *Psychiatry Research*. The word limit for this journal is 5000 words. All study related material can be found in the Appendices (1-15)

**Cultural differences between White British and South Asians in Causal Beliefs  
about Psychosis in a healthy adolescent general population sample.**

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## ABSTRACT

Previous research has shown that people with psychosis experience a great amount of stigma associated with their mental health problems, which further impacts on their health. Little is known about cultural differences in causal beliefs for psychosis in young people, despite psychotic experiences often emerging in teenage years. This study aimed to examine such causal beliefs in White British and South Asian young people. One hundred and twenty eight White British and South Asian students from local schools and colleges in the North West of England between the ages of 16-20 completed a cross-sectional survey assessing identification with being British, psychotic experiences, causal beliefs, and contact intentions towards people with psychosis. A MANCOVA, controlling for gender, revealed a significant main effect of ethnicity on identification causal beliefs (supernatural attitudes), and contact intentions with people with psychosis. South Asian participants reported lower group identification, higher supernatural beliefs and lower contact intentions than the White British participants. The effect of ethnicity on contact intentions was mediated by supernatural attitudes. Psychotic experiences moderated the effect of ethnicity on supernatural attitudes. These differences are important in understanding and challenging cultural differences in stigma. Clinical implications of these findings are discussed.

**Keywords:** Psychosis, Stigma, Cultural Differences, South Asian, Causal Beliefs, Supernatural attitudes.



## **1. Introduction**

Many people who experience mental health problems such as psychosis experience stigma and discrimination. Stigma was originally defined as an attribute that is deeply discrediting (Goffman, 1963), which reduces a person from a whole person to a tainted or discounted one. Following his work there has been a vast amount of research undertaken in conceptualising stigma. Corrigan and Watson (2002) described stigma as having two major dimensions: public stigma and self-stigma. Public stigma comprises of negative attitudes (prejudice), beliefs (stereotypes) and behaviour (discrimination) towards the stigmatised person. These public views can be internalised by the stigmatised individual, leading to self-stigma, which has shown to have an impact on a person's self-esteem (Link et al., 2001). It can be argued that Psychosis has some of the most negative stereotypes associated with it than any other mental health problem. Research has shown that people with psychosis are seen as a danger to others and unpredictable (Angermeyer et al., 2005; Crisp et al., 2000; Wood et al., 2014). This misconception of dangerousness leads to more social distance by the public (Angermeyer, 2003), ultimately leading to social exclusion (Gaebel et al., 2002; Mueller et al., 2006). Therefore, stigma is a major problem which can lead to isolation from society (Rueve & Welton, 2008). While there is a wealth of research on the negative consequences of stigma, little research has looked at cultural differences.

### **1.1 Stigma and Culture**

There is evidence that stigma varies between countries and cultures (Bhugra, 2006; Thornicroft, 2006). Whilst the stigmatisation and discrimination of people with a mental health problem is a global problem (Thornicroft, 2006) research suggests that the stereotypes of people with mental health problems, the causal beliefs

endorsed, and the relationships between these variables may differ between countries and the cultures they encompass (Shibre et al., 2001). Therefore, stigmatising attitudes appear to be largely socio-culturally constructed and there is a need to understand local contexts to develop effective treatments to change such attitudes. Culture influences the ways individuals communicate and manifest symptoms of mental health problems, their style of coping and their support systems. It is also reported to influence an individual's willingness to seek treatment (Sherer, 2002).

A study examining Asians and Caucasians with a schizophrenia diagnosis found that inception rates for schizophrenia were similar in both groups (Bhugra & Leff, 1999). However, there were key differences in religious affiliation between the two groups. It has been proposed that religion can provide a sense of belonging and social support that is readily available and acceptable, which may indicate seeking solace in an external locus of control for mental health experiences. Also, there is a difference in symptom manifestation and the Asians were more likely to have had a longer duration of symptoms prior to seeking help.

There is preliminary evidence that causal explanations for mental health problems such as psychosis could be linked to stigma (Link et al., 2001). Angermeyer (2003) hypothesised that causal beliefs impact stigma in a way that those people who are more likely to endorse biological causes for schizophrenia may have less desire for social distance from people with schizophrenia. Contrary to the predictions, results showed that biological endorsements were positively related to social distance. Further research into causal beliefs and their impact on stigma need to be conducted as there is a paucity of research in this area more so within South Asian populations.

## **1.2 Causal Explanations**

Causal explanations are a set of assumptions that individuals hold about the cause of a particular phenomenon and many causal explanations have been put forward for psychosis (Walker & Read, 2002). Biogenetic explanations focus on the brain, neuroanatomy and biochemical imbalance within the brain. The biomedical model assumes that mental health problems like schizophrenia are biologically based brain defects and are caused by biological abnormalities that are principally located in the brain. The bio-psychosocial model suggests that biological, psychological and social factors all combine to play a significant role in causing psychosis (Angermeyer, et al., 2011). These include the environment, a person's thoughts, feelings, behaviours and the culture and customs they are part of. Some studies conducted with the general public found that the greater the belief in biogenetic causes the more negative the attitudes were towards those with mental health problems (Read & Harré, 2001). Also, those with biogenetic causal beliefs believed those with mental health problems as more dangerous and unpredictable and were more likely to avoid contact with them than those that had more psychosocial causal beliefs (Read & Law, 1999).

Cross-cultural studies have shown that people with schizophrenia have different experiences and causal beliefs about hearing voices in different countries. A study comparing data from three countries found that in California participants described schizophrenia as a brain disease and psychiatric diagnostic terminology was used when talking about voices. In contrast, in India the participants rarely used diagnostic terms and the voices were usually of relatives or friends giving them advice or scolding them. In Ghana, voices were considered to be of God and were perceived almost entirely as a positive experience. These findings suggest that

interpretations about voices are shaped by local culture and belief systems (Luhmann et al., 2015).

Studies have also found that when comparing biological and supernatural causes of mental health problems, White British groups mentioned biological causes more frequently than other non-White groups, who endorsed supernatural causes more frequently (Dein and Bhui, 2013). For example, McCabe and Priebe (2004) found that Bangladeshi's, who cited supernatural causes more frequently as causal beliefs for mental health problems, either asked for alternative forms of treatment such as religious activities or no treatment at all. In contrast, those in White British groups, cited biological and social causes more frequently, and preferred medication and counselling. These findings are supported by Dein et al. (2010), who found spirit possession and witchcraft were frequent explanations for mental health problems in South Asian families of those with mental health problems (Dein et al., 2008; Dein, 2010). Many people sought help from traditional healers and reported prayer, consulting imams, and reading the Qur'an as helpful. These findings support the view that ethnic minority groups, including South Asian communities, still consider mental illness a taboo subject and prefer spiritual causal explanations and traditional healers as a source of treatment. A report into attitudes towards mental health problems in the South Asian community (Harrow Council, 2010) found that people viewed mental health problems as something to be ashamed of and to be hidden from friends, families and communities for fear of being outcast, ridiculed and abused. Within South Asian communities, the causes of mental illness appear to be either associated with biogenetic explanations (something people are born with) or the will of God, karmic retribution or evil eye (Kulhara et al., 2000). These causal beliefs suggest that South Asians may be less likely to make contact with

those with mental health problems than White British people. Current evidence suggests that people from South Asian communities view mental health problems and psychosis to be a taboo subject. It could be argued, therefore, that those with mental health problems within the community may isolate themselves from others as a coping strategy to avoid stigma. Studies have also found that contact with someone with a mental health problem is limited for Asians as they perceive those with mental health problems to be significantly more dangerous than those reported from White backgrounds (Whaley, 1997). More specifically, research indicates that in some South Asian communities people felt that social relationships with those who had mental health problems should be restricted and children were warned by parents of the dangers of people with mental health problems, therefore keeping their distance and isolating those with mental health problems further (Salve, 2013).

Previous research suggests a relationship between spirituality/religiosity and self-esteem. For example, Pederson (1998) found that those with a stronger central spiritual identity had higher self-esteem and lower levels of neuroticism. Kanya (2000) also found that spiritual well-being was related to higher self-esteem. Krause (1995) found greater self-esteem amongst those who had more religious and spiritual beliefs. In our research, we examined whether self-esteem differed between White British and South Asians, and whether self-esteem mediated the relationship between ethnicity and causal beliefs.

This issue around controllability of illness and impact on social distance is key and we hope to explore locus of control of mental health problems in this study. Koeing (2012) stated that religion and spirituality are believed to provide an indirect sense of control over stressful situations, by believing that god/or other spiritual forces

are in control rather than themselves. We hypothesise that people who have more spiritual beliefs tend to attribute causes of their illness to external factors such as God or karma, whereas people with biological beliefs for causation tend to attribute illness to internal factors such as chemical imbalance or genetics.

### **1.3 The Current Study**

The United Kingdom is home to over 3 million South Asians (Office for National Statistics, 2011). Demographic data for South Asians indicate they are less likely than both the general population and other ethnic minority groups to access mental health services (Sheikh and Furnham, 2000). Therefore, there is a need to understand cultural differences in causal explanations in order to promote appropriate access to evidence based interventions to reduce stigma.

Our study focuses on young people as schizophrenia and related psychotic disorders often have their onset in adolescence (Garralda & Raynaud, 2012).

This is an important time for development of identity, independence, relationships and long term vocational plans (Bunk et al., 1999; Hafner et al., 1998; Hafner & Nowotny, 1995). The onset of psychosis can therefore cause considerable disruption, making it crucial in understanding it better and, developing effective early intervention strategies. Recently there has been a focus on school based anti-stigma initiatives which suggest that increasing knowledge about mental health problems and improving attitudes towards those with psychosis helps to reduce stigma (Pinfold et al., 2003). Adolescents have therefore emerged as a promising target group for anti-stigma interventions in changing stigmatising views towards mental health problems. Therefore; we focused on exploring the views and differences in causal beliefs of young people within the general population.

This study examined cultural differences in causal explanations for psychosis in White British and South Asian young people living in the UK, as well as their implications for contact with people with psychosis. In particular, we hypothesised that White British are more likely to endorse biological and psychosocial factors as causes for psychosis, whereas South Asian are more likely to indicate supernatural or spiritual explanations. We also hypothesised that White British will report higher contact intentions with people with psychosis than South Asian, self-esteem and control over illness will mediate the relationship between ethnicity and causal explanations, causal beliefs will mediate the relationship between ethnicity and contact intentions and that identification with being British and prior contact with people with psychosis are expected to moderate the relationship between ethnicity and causal beliefs.

## **2. Method**

### **2.1 Participants**

A total of 205 young people participated in the study who met the inclusion criteria and were administered questionnaires. In our study we defined “South Asian” as those individuals originating from the South Asian subcontinent, including those from Indian, Pakistani, Bangladeshi and Sri Lankan heritage, but who lived in England. Only 128 were included in the final analysis; (for demographics see Table 2) 64 from South Asian sample and 64 from the White British sample. In total 205 participants completed the questionnaire packs, not all were of the ethnicities required for exploration. Once these cases were removed from the database the remaining 173 participants included a large White British sample of 109 and an adequate sample of 64 from South Asian group. Due to the unequal sample size we decided to have a matched sample size for both groups and 64 cases were randomly

selected via SPSS from the 109 White British group to be included in the final 128 participants included for analysis. Those included in the study were between the age of 16 and 20 and in school or college. The exclusion criteria for the study was not speaking or understanding English as all the measures used were in English.

## **2.2 Procedure**

Students at participating colleges and schools received a copy of the participant information sheet, consent and assent forms. A week later the researcher provided participants the packs of questionnaires. Prior to administration of the questionnaire all participants were given a sheet of information taken from a health care provider outlining the definition of psychosis, this was also put up on a projector screen in the classrooms and the researcher read this out aloud for the participants to make sure everyone had an understanding of what the term psychosis meant (A copy of this information can be seen in appendix 15. Once the questionnaires were completed, the participants were asked to put the work/questionnaires in the envelopes, seal them and return to the researchers. The study received ethical approval by the local institutional research and ethics committee.

## **2.3 Material**

**Demographic information** included ethnicity, religion, any previous contact with any mental health service, and if they had any prior contact with someone with psychosis.

**Psychotic experiences** were assessed using the Community Assessment of Psychic Experiences CAPE (Adapted from Stefanis et al., 2002) with 5 items, on a scale from never to nearly always, for example, “do you ever feel as if thoughts in your head are not your own?” (Cronbach’s Alpha of  $\alpha = 0.836$ ). This has been validated with a non-clinical group (Brenner et al., 2007).



**Identification with being British** was measured using the Group Identification measure (adapted from Hornsey and Hogg, 2000) and consisted of 5 items on a scale from 1 (strongly disagree) to 7 (strongly agree), for example “I feel British”. A composite score was created by the mean of these items ( $\alpha = 0.885$ ).

**Causal beliefs** were measured using several scales. The Beliefs about Mental Health Problems questionnaire (BAMHQ, Carter et al., 2014 in prep) consists of 8 possible causes of mental health problems (traumatic events in childhood, family history or the result of religious/spiritual forces) on a scale from 1 (strongly disagree) to 5 (strongly agree), for example “possible causes- family history”. A composite score was created by the sum of the items ( $\alpha = 0.741$ ) (See paper 3 for factor analysis findings for this measure).

The supernatural attitudes questionnaire (adapted from Kulhara et al., 2000) consisted of 27 items on a scale from 1 (strongly disagree) to 7 (strongly disagree), for example “mental illness can be caused by divine wrath”. A composite score was created by the sum of these items ( $\alpha = 0.96$ ).

**Mental Health Locus of Control Scale** (MHLOC, Hill & Bale, 1980) was used to measure beliefs around controllability over mental health experiences. This questionnaire consists of 22 questions that were rated from 1 as strongly agree with 5 being strongly disagree, for example “when experiencing psychological problems the person is least likely to come up with solutions oneself”. A composite score was created by the mean of the items ( $\alpha = 0.667$ ).

**Mental Health Locus of Origin Scale** also developed by (MHLOO, Hill & Bale, 1980) was used to measure causal explanations about mental health. It consists of 20 questions exploring the aetiology of psychological problems using a rating scale with 1 being strongly agree and 5 being strongly disagree, with statements such as

“eventually medical science will discover a cure for psychosis”. A composite score was created by the mean of the items ( $\alpha = 0.76$ ). (See paper 3 for factor analysis findings for the MHLOC and MHLOO scales)

**Self-esteem** was measured using the Rosenberg Self-Esteem Scale (Rosenberg, 1965) for example as “I feel that I have a number of good qualities” or I wish I could have more respect for myself” on a scale from 1 (strongly disagree) to 4 (strongly agree), items were recoded so that higher values indicate higher self-esteem. An example questions is “on the whole I am satisfied with myself”. A composite score was created by the mean of the items ( $\alpha = 0.824$ ).

**Contact intentions questionnaire** (Tam, 2009) was used to see if people will avoid or interact with people who have mental health problems. Participants were asked to rate how much they would aggress against, avoid and approach people with a mental illness. The questionnaire consisted of 9 questions looking at how much they agreed with the way people would respond to people with psychosis either talk to them or avoid them based on a 7 point scale with 1 being not at all and 7 being very much. An example is “I would keep them at a distance”. A composite score was created by the mean of the items ( $\alpha = 0.775$ ).

### ***2.3.1 Data Analysis***

The Statistical Package for Social Sciences (SPSS) version 22 was used for the analysis. Normality of data was checked by exploring descriptive, statistics, histograms, skewness and kurtosis. Also log transformations of the data were carried out on data not normally distributed. Reliability analysis for all measures was carried out and further factor analysis was conducted where reliability of measures was below  $\alpha = 0.7$ , namely the MHLOC and MHLOO scales. Following this a MANCOVA was conducted to explore whether the White British and South

Asian group differed in their causal beliefs. A Separate ANCOVA was conducted to test whether there was a significant effect of contact intentions on ethnicity.

In addition to this we conducted mediation analyses to explore if self-esteem, control over illness and contact intentions mediated the relationship between causal beliefs and ethnicity. This was conducted using bootstrapping analyses methods described by Preacher & Hayes (2007). Moderation analysis was also be carried out based on the Preacher & Hayes (2008) methods to explore if identification with being British and prior contact with people that have psychosis, moderate the relationship between ethnicity and causal explanations.

### **3. Results**

#### **3.1. Demographics**

Within the demographic data collated, we also specifically asked if participants had previous contact with someone with a mental health problem, had experienced mental health problems themselves or had any prior contact with services. Table 2 illustrates this data. Generally, the mean age of participants in both groups was 16 and in the White British group the majority of participants were female compared to the South Asian group where the majority were males.

##### ***3.1.1 Normality of data***

The data was tested for normality using cut off scores between +- 1.96 (Field, 2009). All data were normally distributed apart from the Rosenberg self-esteem measure where skewness was found to be .819 and the kurtosis value was 9.441. A non-parametric analysis was conducted with this measure using the Kruskal-Wallis for one-way ANOVA and the results were similar to the parametric measure. In addition

log and square root transformations were also conducted but did not alter the skewness or kurtosis. We also visually inspected the histogram of the data and it looked normally distributed.

### **3.2 Causal Beliefs**

In order to test whether White British and South Asians differed in their causal beliefs, a MANCOVA was used with ethnicity as the independent variable and BAMHQ, MHLOO, MHLOC and SAQ as the dependent measures. Gender was used as a covariate due to the differences in males and females in both groups.

Descriptives of the statistics for all the measures can be found in Table 3.

Using Pillai's trace, there was a significant effect for ethnicity on causal beliefs between the White British group and the South Asian group,  $V = .129$ ,  $F(4, 122) = 4.52$ ,  $p < .01$ . However, separate univariate ANCOVA's on the outcome variables only revealed a significant effect on supernatural attitudes between the two groups when controlling for gender, ( $F(1, 125) = 30.651$ ,  $p < .001$ ). There were no significant effects on the other causal belief measures (see Table 3).

### **3.3 Contact Intentions**

A one-way ANCOVA revealed there was a significant effect of contact intentions on ethnicity after controlling for the effect of gender, ( $F(1, 125) = 10.012$ ,  $p < .002$ , partial  $\eta^2 = .074$ ). The covariate, gender however, was not significantly related to ethnicity ( $F(1, 125) = .798$ ,  $p = .374$ ).

### **3.4 Self-esteem and control over illness**

A one-way ANCOVA did not find a significant effect of self-esteem on ethnicity after controlling for the effect of gender ( $F(1, 125) = 11.475$ ,  $p = .352$ , partial

$n^2=.007$ ). The covariate gender was also not found to be significantly related to ethnicity ( $F(1,125) = 1.051, p = .307, \text{partial } n^2 = .008$ ). Similarly, there was no significant effect of control over illness (MHLOC) internal on ethnicity after controlling for gender ( $F(1,125) = .003, p = .957$ ), and external, ( $F(1,125) = .395, p = .531, \text{partial } n^2 = .003$ ).

### **3.5 Mediation Analyses**

#### **3.5.1. Causal beliefs**

To determine whether certain variables mediate the relationship between causal beliefs and ethnicity, bootstrapping analyses were conducted using methods described by Preacher & Hayes (2007) for estimating direct and indirect effects of multiple mediators. Firstly, analyses were conducted to investigate the hypothesis that self-esteem is expected to mediate the relationship between ethnicity and causal beliefs. However, there was no significant indirect effect of ethnicity on causal beliefs (SAQ) through self-esteem,  $b = .4630$ , 95% bootstrap confidence intervals (BCa CI) [-.4760, 2.0864]. Therefore the mediational hypothesis was not supported for self-esteem which does not predict causal explanations (in this case supernatural attitudes questionnaire SAQ).

Also, the mediational hypothesis was not supported for control over illness. There was no significant indirect effect of ethnicity on causal beliefs (SAQ) through the MHLOC (control over illness) both internal  $b = .2593$ , 95% BCa CI [-2.770, 2.199] and external  $b = .6455$ , 95% BCa CI [.1302, 2.92].

#### **3.5.2. Contact intentions**

We also hypothesised that causal explanations were expected to mediate the relationship between ethnicity and contact intentions. We predicted the South Asian

group would report more religious, supernatural or biological explanations and, therefore, lower contact intentions compared to the White British group. The analysis found that there was a significant indirect effect of ethnicity on contact intentions through causal beliefs (SAQ),  $b = -.0063$ , 95% BCa CI [-.614, .0518]. This represents a relatively small effect,  $k^2 = -.022$ , 95% BCa CI [-.2130, .3686]. Therefore, ethnicity is related to contact intentions and this relationship is mediated by causal explanations (supernatural attitudes SAQ). Figure 2 is a model of ethnicity as a predictor of contact intentions mediated by causal beliefs (SAQ). The confidence interval for the indirect effect is bootstrapped confidence intervals based on 1000 samples.

### **3.6 Moderation Analysis**

Moderation analysis was carried out based on the Preacher and Hayes method (2008). Analyses were conducted to assess each component of the proposed moderation model. Our hypotheses proposed that identification with being British and prior contact with people with psychosis are expected to moderate the relationship between ethnicity and causal explanations. South Asian young people who identify with being British are expected to give bio-psychosocial explanations similar to White British young people. However, no significant interaction was found between identity and ethnicity. Therefore, the relationship between ethnicity and causal explanations (supernatural beliefs) is not moderated by group interaction (See table 4). Also, we predicted that the South Asian and White British young people who have had low prior contact with people with psychosis are more likely to avoid them. The analysis found no significant effect; therefore, prior contact with people

with psychosis does not moderate the relationship between ethnicity and causal explanations (supernatural beliefs) see table 5.

### ***3.6.1. Exploratory analysis of the data***

In addition to our hypotheses, further exploration of the data was conducted. The CAPE measures common symptoms of psychosis experienced by the participants. In order to investigate whether such experiences moderated the relationship between ethnicity and causal explanations (supernatural beliefs SAQ), we performed a moderation analysis based on the Preacher and Hayes method (2008). The results found that there was a significant interaction effect, and in this case the interaction was highly significant,  $b = 1.971$ , 95% CI [-2.144, 6.087],  $t = .9480$ ,  $p < .001$ .

To interpret the moderation effect, we examined the simple slopes, and found that when scores on the CAPE were low, there was a significant negative relationship between causal beliefs (supernatural beliefs SAQ) and ethnicity,  $b = -17.625$ , 95% CI [-27.982, -7.269],  $t = -3.367$ ,  $p < .001$ . At the mean value of CAPE scores, there was a significant negative relationship between causal beliefs (supernatural beliefs SAQ) and ethnicity,  $b = -14.554$ , 95% CI [-22.398, -6.712],  $t = -3.673$ ,  $p < .001$ . However, when the CAPE scores were high there was a non-significant negative relationship between causal beliefs (supernatural beliefs SAQ) and ethnicity,  $b = -11.482$ , 95% CI [-21.385, -1.579],  $t = -2.2950$ ,  $p = .0234$  (see table 6).

## **4. Discussion**

The current study examined cultural differences in causal beliefs in psychosis and found that South Asians were more likely to indicate supernatural factors as causes for psychosis, more so than the White British group. This finding supports other studies examining group differences between South Asians and White British groups

(McCabe and Priebe, 2004; Bhikha, et al., 2012; Bhugra et al., 1999), which found the South Asians were more likely to endorse supernatural and or spiritual causes for mental health difficulties than the White British groups. It is possible this may be explained by factors such as South Asians being more religious, and more familiar with different types of supernatural beliefs than the White British group.

We also found that White British reported higher future contact intentions with people with psychosis than South Asians. These findings could be explained by early studies and reports that have suggested that because people from South Asian communities tend to view mental health problems and psychosis as a taboo subject something to be ashamed of or hidden; those with mental health problems may isolate themselves from others (Rathod et al., 2010). Research also suggests that in some South Asian communities' people felt that social relationships with those who had mental health problems should be restricted and children were warned by parents of the dangers of people who were mentally unwell (Salve et al., 2013). Our mediation hypotheses proposed that self-esteem and control over illness would mediate the relationship between ethnicity and causal beliefs because South Asians would report having lower control over their illness and self-esteem and would, therefore, give more religious/supernatural reasons. However, the results did not support this hypothesis. It is possible that this may be because our sample was non-clinical, which may have meant that control over illness was an abstract concept for our participants. It is also possible that those who identify as belonging to a particular religion may not be practicing members and therefore, their self-esteem may not be influenced by religious or spiritual beliefs. This requires further investigation. Studies have documented a relationship between ethnicity and contact intentions with people with mental health problems (Whaley, 1997). The current study further



supported this, finding that causal beliefs did mediate the effect of ethnicity on contact intentions. Therefore, people who believe in supernatural or spiritual causes of mental health problems, impacts on how likely they are to have contact with, approach or help those that have mental health difficulties. One possible reason may be that people feel that mental health problems can be contagious and spread through contact, therefore distance may be preferred.

We also hypothesised that identification with being British would moderate the effect of ethnicity on causal beliefs. South Asians who identified with being British were hypothesised as likely to have similar beliefs to the White British. However, no significant interaction was found between identity and ethnicity therefore, the relationship between ethnicity and causal explanations (supernatural beliefs) is not moderated by group interaction.

We also found some surprising results from our exploratory analysis that occurrence of psychotic experiences, as measured by the CAPE, moderated the effects of ethnicity on causal beliefs. This was true for those South Asians who reported low and moderate levels of psychotic experiences, but not those who reported high levels of psychotic experiences. In fact the higher the CAPE occurrence the lower the supernatural/spiritual/religious beliefs reported. This was the opposite for the white British group, which found that those who reported higher scores on the CAPE reported higher supernatural/spiritual/religious beliefs. The reason these results are surprising, are that traditionally within South Asian populations it is more culturally normal or acceptable to have supernatural beliefs whereas in White British populations it is the opposite, and less culturally normal to have supernatural beliefs (McCabe & Priebe, 2004). This is also reflected in our participant sample whereby the South Asian group identified with a religion more so than the White British

group. However as this was an exploratory analysis of the data further research is required.

#### **4.1 Limitations**

There were some limitations within the study. Firstly, an important limitation in this study is the use of a student non-clinical sample, which means the conclusions from this study are limited as there maybe questions regarding generalisability for clinical participants. Therefore, future research would benefit from a sample of clinical participants. Secondly, the amount of measures used in this study may have led to excessive participant burden, as some participants reported that they found it difficult to concentrate for the length of time required. Thirdly, the reliability of the MHLOC scale ( $\alpha = 0.667$ ) was found to be problematic; although this was not our primary measure, further assessment of suitable measures looking at mental health locus of control would be warranted. Also many of the measures utilised in the study had not been normed on an adolescent population which may have impacted on the results. Another limitation is the possible inadvertent priming of participants via the psychosis information given. Even though this information was taken from a healthcare provider, and did not suggest any causal beliefs, it may have some indirect influence on participant responses which needs to be considered.

#### **4.2 Clinical implications and future research**

The impact of stigma is profound. People with mental health problems frequently delay help seeking due to fear of the social consequences (Schulze, and Angermeyer, 2003), fear of rejection from society, friends, families and partners, which frequently results in lowered self-esteem (Wright et al., 2000.). Therefore, enduring this stigma can lead to people living in a state of constant stress making the initial mental health

problem worse (Link and Phelan, 2006). In the UK, ethnic minorities frequently receive inadequate mental health service provision and in some cases, particularly amongst Asian minorities, services fail to reach or engage with communities where there is a need (Knifton, 2012). It is important to understand why this is the case, an important factor is to understand the differences in causal beliefs between different cultures even those that live alongside each other (Lawrence et al., 2005). There is a need to understand these causal beliefs and reduce the stigma surrounding mental health problems and make services accessible to those with alternative causal beliefs than those of the wider community. Not only being sensitive to them but also working with them to allow effective and early treatment. The way in which mental health problems are conceptualised tends to influence causal beliefs of both patients and non-patients alike in terms of stigmatisation. These causal beliefs may in turn raise the possibility of prejudice towards and discrimination against those suffering from mental health problems (Lam et al., 2005). Demographic data from the UK indicates that South Asians are the least likely; in both the general population and other ethnic minority groups to access mental health services (Sheikh and Furnham, 2000) and this has huge clinical implications for the diagnosis, treatment and management of psychosis. Breaking down cultural barriers by understanding the causal beliefs that are present and working alongside these, may assist in getting people from the South Asian communities to access the available mental health provisions, and engage in appropriate treatments enhancing their quality of life. Contact with people that have mental health problems may help to increase the effects of education on reducing stigma. Research also suggests that explanatory models, independent of ethnicity, have been found to be associated with levels of satisfaction with treatment in South Asians, suggesting that what people believed

about their illness influenced their experience of using mental health services (McCabe and Priebe, 2004).

This study highlighted that further research is clearly required despite, it being difficult to recruit from South Asian groups; it may be useful to look at doing more in depth interviews with parents and young people and explore the reasons behind any barriers to participation and their causal beliefs about mental health problems. Due to the difficulties in recruiting from schools and concerns raised by teachers about the impact of talking about psychosis, it may be useful to work with schools and teachers about their understanding of causes of mental health problems. This would include increasing awareness and education around mental health problems and sources of support available. Also to explore their responses to different ethnic groups differ with regards to the advice they offer or who they signpost people to. Further research into different treatments that South Asians prefer and where they seek these in England also needs to be explored. This became apparent when the SAQ was being completed and supernatural methods of treatment were indicated. Also research has shown that those without mental health problems that have met people with mental health difficulties are less likely to stigmatise against them (Angermeyer et al., 2003). Therefore further research needs to look at how to improve the contact people from South Asian communities have with those with mental health problems as well as educating them in order to reduce the stigma that continue to surround mental health problems.

## **5. Conclusions**

The findings of this study support previous research that suggests South Asians have different causal beliefs to the White British with regards to attributing psychosis to supernatural/religious causation (McCabe and Priebe, 2004; Bhika et al., 2014). The

significant differences found between the two groups with regards to contact intentions with people with psychosis suggests that South Asians are less likely to initiate or have contact with, those who have a mental health problem than the White British group. In addition, the significant difference found between the South Asian and White British groups with regards to group identification suggest that the South Asian group identify less with being British than the White British group.

Causal beliefs are an important factor in understanding how people make sense of psychosis and how culture plays a big role in this. This study illustrates the importance of understanding and addressing stigma in its socio-cultural context. Developing a better understanding of these different causal beliefs may provide valuable insights into different South Asian communities and allow clinicians to develop more culturally sensitive treatment approaches. It may also support the reduction of stigma towards those that have mental health problems in South Asian communities.

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**Table 2: Participant Demographics for South Asian and White British groups**

<i>N</i>	Frequencies For participants (128)	White British (64)	South Asian (64)
<b>Gender M:F</b>	64:64	14:50	50:14
<i>M age (SD)</i>	16.74 (.863)	16.95 (.796)	16.53 (2.603)
<b>Religion</b>			
No religion	51	No Religion =33	No Religion = 18
Christian	30	Christian = 28	Christian = 2
Muslim	33	Church of England = 0	Muslim = 33
Church of England	0	Catholic = 1	Sikh = 2
Buddhist	0	Hindu = 1	Prefer not to say = 2
Catholic	0	Other = 1	Hindu = 6
Sikh	2		Other = 1
Prefer not to say	2		
Hindu	7		
Other	3		
<b>First Language</b>		English=109	English=49
English	113		Arabic=1
Urdu	9		Urdu=9
Punjabi	3		Punjabi= 3
Arabic	1		Malayam=1
Malayam	1		Not specified=1
Not specified	1		
<b>Prior contact with services</b>			
Yes	19	19	4
No	43	43	60
<b>Prior mental health Problems</b>			
Yes	16	16	2
No	38	38	56
Prefer not to say	10	10	6
<b>Prior contact with Someone with a mental health problem</b>			
Yes	45	45	39
No	18	18	25
Total		64	64

**Table 3: Mean and standard deviation and statistics of all the measures analysed**

Variables	White British Group		South Asian Group		F df (1,125)	p
	M	SD	M	SD		
SAQ*	73.08	34.177	80.05	43.817	16.290	0.001
Contact intentions*	5.92	0.750	5.28	.878	10.012	0.002
Group Identification*	5.35	1.532	4.64	1.514	11.547	0.352
BAMPHQ- Psychological	7.45	1.799	7.19	1.790	.908	0.342
Biological`	16.67	2.116	16.48	2.337	1.090	0.299
Spiritual	2.42	1.232	2.37	1.386	3.254	0.074
MHLOO- Internal	21.70	3.059	22.89	3.977	0.03	0.531
External	34.80	6.462	37.58	7.222	17.944	0.531
Self-esteem	24.64	3.124	25.81	4.074	11.475	0.352
MHLOC- Internal	25.11	3.871	25.16	4.307	0.003	0.957
External	45.41	6.284	42.88	6.603	1.753	0.188

\*significant results.

**Table 4: Linear model of predictors of causal beliefs**

	<i>b</i>	<i>SE B</i>	<i>t</i>	<i>p</i>
Constant	21.7590	17.3958	1.2508	<i>p</i> = .026
Group Identity	-1.5907	2.1089	-.7543	<i>p</i> = .4521
Ethnicity	-24.3936	11.2784	-2.1629	<i>p</i> = .0325
Group Identity X ethnicity	1.9711	2.0793	.9480	<i>p</i> = .3450

Note.  $R^2 = .21$

**Table 5: Linear model of predictors of contact intentions**

	<i>b</i>	<i>SE B</i>	<i>t</i>	<i>p</i>
Constant	-39.967	23.66	-1.677	<i>p</i> = .096
Prior contact (PC)	20.96	22.15	.9463	<i>p</i> = .3459
Ethnicity	36.8205	10.478	.3.514	<i>p</i> = .0006
CI X ethnicity	-14.489	13.749	-1.054	<i>p</i> = .2940

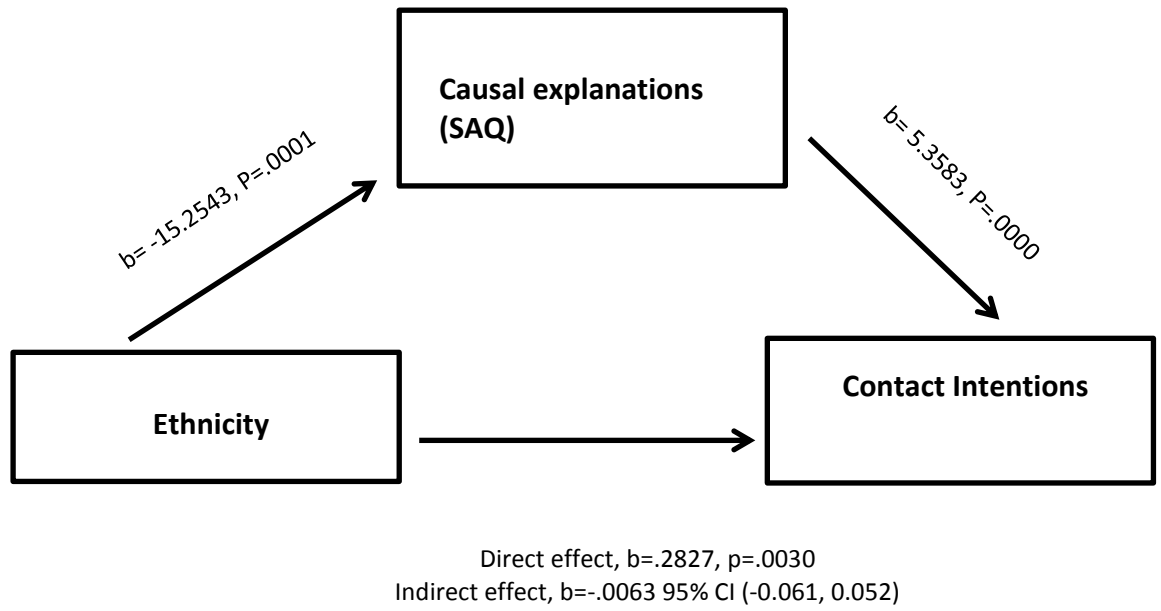
Note.  $R^2 = .0072$

**Table 6: Linear model of predictors of CAPE occurrence**

	<i>b</i>	<i>SE B</i>	<i>t</i>	<i>p</i>
Constant	21.737	12.40	1.752	<i>p</i> = .082
CAPE	-.8530	1.296	-.6580	<i>p</i> = .5117
Low occurrence	.1176	4.669	-4.790	<i>p</i> =.0000
Medium occurrence	2.531	3.737	-3.924	<i>p</i> =.0001
High occurrence	4.944	5.104	-1.365	<i>p</i> =.1747
Ethnicity	-22.74	4.7633	-4.775	<i>p</i> = .0000
CAPE X ethnicity	3.1901	1.307	2.440	<i>p</i> = .0161

Note.  $R^2 = .244$

**Figure 2: Mediated path for contact intentions**



**Paper 3: Critical reflections of Cultural differences in causal beliefs for psychosis and explanatory models in South Asian populations**

Total Word Count: 5,784

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References for this paper are in accordance with those for the *Clinical Psychology Review Journal*. Any study documentation referred to can be found in the appendices.

## **1. Abstract**

This paper provides a critical reflection of the research process of undertaking a quantitative investigation to explore the differences in causal beliefs about psychosis in South Asian and White British student populations. The trainee will start with discussing the rationale for the systematic review with a reflection of the process involved. This will be followed by how the project and research came to be, and the main findings of the study will be discussed including difficulties and limitations of the research.

## **2. Developing the research**

Past clinical and research experiences influenced the choice of research and design of the project. Having previously worked in mental health services for a number of years, the trainee was always struck by the lack of South Asian patients/clients/service users that she encountered. The ones she did encounter had waited a number of years before seeking any formal treatment and also had strikingly different causal beliefs for their mental health problems compared to other patient groups. Coming from South Asian heritage herself the trainee had witnessed first-hand the impact that causal beliefs have on treatment choices, raised her curiosity to understand if these differences between South Asian populations and White British populations do still exist despite acculturation. Explanatory models of illness were originally explored by Kleinman in 1980 (Kleinman, 1980) and despite further research over the years into causal models of illness; the literature for psychosis is still limited. This is further pronounced within the South Asian community living in the UK. Many causal factors have been put forward for the aetiology and causation of psychosis including supernatural,



spiritual and religious beliefs. The research neatly bridged a gap between research proposed by the clinical supervisors and the trainee's personal and clinical interest.

### **3. The systematic review**

It became apparent that research into causal beliefs, particularly for psychosis and in South Asian populations, had limited exploration within the literature. This was one of the main reasons why the trainee wanted to explore what the existing literature reported and what was needed to support the research in this area to move forward.

Due to the nature of the research question, which was to explore what we know about causal explanations of psychosis within South Asian populations, and the type of data available from the studies, meta-analysis was neither feasible nor appropriate. A narrative synthesis of the literature was conducted, following the guidance by Popay, Roberts, Sowden, Petticrew, Arai, Rodgers, et al., (2004) in order to “tell the story” of the findings in a systematic manner. The authors proposed four main elements within the guidance: firstly to consider the role of theories of change or effect relevant to the review. Secondly to develop a preliminary synthesis, through clustering, tabulating, describing and translating relevant data. Thirdly to explore relationships within the data and fourthly, assessing the robustness of the synthesis product through critical reflection.

Following the database search, the trainee was overwhelmed by the amount of data from the initial search of 13, 042 articles. The main challenge was to identify salient data which took a lot of sifting through and reading. In order to address these feelings of being overwhelmed the trainee made sure that she kept accurate notes, used supervision to check that she was appropriately excluding and including papers, and also keeping a database to record and manage articles. This narrative

synthesis offered further understanding of causal beliefs and explanations that South Asians give for psychosis, which was what was expected. It was a surprise however, to find some literature suggesting that people can hold multiple and often contradictory explanatory models for psychosis. These can be either traditional that are based on religious ideology or they can be based on biomedical models of psychosis where it is considered a medical condition.

The studies included in the review had methodological limitations including the unstandardized causal belief measures used. Furthermore, it was felt the studies did not provide a thorough overview of the South Asian populations causal beliefs and explanations given for psychosis and the treatments they sought and why because the majority of studies were from the same area of South Asia namely Tamil Nadu in India. To get a greater snapshot and understanding, there needs to be greater studies from Pakistan, Bangladesh and Sri Lanka.

The majority of causal belief measures utilised in the studies were unstandardized and each study had developed their individual interviews and questionnaires to elicit people's causal beliefs, therefore comparing these studies was difficult. It was also a task to find relevant studies and extract information from them. The existing literature revealed that psychosis in South Asians in the UK had been explored even less thus making it difficult to conclude if beliefs in South Asians living in the UK differed from those who lived in South Asian countries.

#### **4. The research study**

The universality of mental health problems across cultures has been well documented and acknowledged. A person's cultural background can influence mental health problems in terms of belief about causes, perception, and experience of symptoms, recognition and treatments (Kleinman, 1977; Ng, 1997).

There is evidence that discrimination and stigma varies between countries and cultures and whilst the stigmatisation and discrimination of people with a mental health problem is a global problem (Thorncroft, 2006), research suggests that the stereotypes of people with mental health problems, the causal beliefs endorsed and the relationships between these variables may differ between countries and the cultures they encompass. Research such as that conducted in Ethiopia, by Shibre et al. (2001) described attitudes towards those who were mentally unwell in Ethiopia, and found that of the 200 relatives of people with a diagnosis of schizophrenia they interviewed, about 75% said they had experienced stigma due to the presence of mental health problem within the family and a third of those interviewed wanted to conceal the fact that a relative was mentally unwell. This study also found that 65% reported that praying was their preferred method of treating the condition.

The literature and research investigating causal beliefs for psychosis particularly in South Asian populations has had limited exploration. Research suggests that South Asians have the highest community rates of mental health problems and were the most frequent consulters in primary care and, were less likely than White British groups to have their mental health problems (especially psychosis) recognised (Commander, Dharan, Odell & Surtees, 1997). In addition, it was also indicated that out of all ethnic groups with mental health problems, South Asians were the least likely to be referred to specialist care (Commander et al., 1997; Odell, Surtees, Wainwright, Commander, Sashidharan, 1997). When the literature was explored further, again there appeared to be limited exploration that had addressed why such differences occurred and the reasons why South Asians were reluctant to seek appropriate help. One explanation of why South Asians were less likely to seek help was proposed by Sherer (2002) who stated that stoicism was a characteristic among many South Asians who did not always express their emotional pain but,

rather somatic complaints were expressed instead. They suggested that somatization maybe interpreted as a defence mechanism for guilt and shame associated with seeking mental health treatment.

The researchers proposed that in order to understand this reluctance to seek help, talk about mental health problems (specifically psychosis) and access appropriate services, there needs to be an exploration of factors that underpin peoples understanding of mental health problems. No studies were found that looked at causal beliefs in young South Asians living in the UK, which is concerning as the onset of psychosis is primarily known to be in the adolescent years. Studies on clinical population samples reveal that about 10% of cases of schizophrenia occur between the ages of 14 and 20 (Garralda & Raynoud, 2012). Additionally, research indicates that stigma starts to form in children between the ages of 7 and 11 especially if they do not understand mental health behaviour and have no other language to describe it (Mueller, Callanan & Greenwood, 2014).

South Asian communities are commonly referred to in the literature as attaching greater stigma to mental health problems than compared to White British communities (Cartwright & Anderson, 1981; Curren, 1984) which may prevent individuals and their families from seeking professional help. These stigmatising attitudes may come from causal beliefs people hold about mental health problems. Within South Asian communities' individuals with mental health difficulties and their families face a range of practical and emotional stresses including social disapproval and the associated social stigma (Vimla, Rajan, Siva, & Braganza, 2003) also the major concern being about marriage prospects (Bhugra, 2006).

This research study aimed to explore this and to add to the limited literature by investigating causal explanations specifically in young South Asians between the

ages of 16-20, and if their beliefs differ from their White British counterparts or if they are similar because they have been born and brought up in England therefore, adopting western values unlike their parents or grandparents or those living in South Asia.

The research study reported that differences in causal beliefs do exist between South Asians and White British groups; this was highlighted with regards to supernatural/religious beliefs as causation of psychosis. The study also highlighted that South Asians were more likely to avoid contact with those who had psychosis, which is consistent with other findings reported (Salve, 2013). This may be related to their parent's beliefs of mental health problems that may have impacted on them. Also because mental health problems are considered a taboo subject, associated with shame and there is little likelihood of South Asians meeting people with psychosis to disconfirm these beliefs.

There is a body of research that indicates that people from South Asian ethnic minorities' access to, utilisation of and treatment prescribed by mental health services differ from those from the White British population (Lloyd & Moodley, 1992; Bhui, 1997). Pathways to mental health care are crucial and these appear to differ in different societies and cultures, reflecting many factors such as attitudes towards services, previous experiences and culturally defined referral systems (Goldberg, 1999). Contact with mental health care services may at times be imposed on a person with problems, but people who choose to engage with services usually do so only if they think the cause of their problems are health related and could be treated through such services. South Asians report that they are more likely to contact whoever they perceive to be the most appropriate individual for their treatment, and these people are often not part of a national health care network, but more traditional faith healers. (Bhui & Bhugra, 2002).

Traditional or spiritual healers who offer culture-specific approaches to mental health problems have been known to be used by South Asian communities in the UK however formal research in this area is limited. Despite the prevalence and use of “traditional” healers being unclear, studies have shown that more than often traditional healers are used alongside western medical help rather than in place of it (Greenwood, Hussain & Burns, 2000; Hussain & Cochrane, 2003). It is interesting to note that Malik (1998) suggests that one reason for visiting traditional healers was that the “healer” is known to be part of the community, with shared belief systems and who has an understanding of the rules of that particular community and whose role is not only understood but also respected in the community. In terms of service provision the role of alternative healers in identifying and treating certain types of problems raises some interesting challenges for services. It may be that marginalising religious or spiritual requirements may mean that people avoid seeking help in mainstream services.

#### **4.1. Difficulties encountered during the research project**

##### ***4.1.1. Ethical approval process***

Obtaining ethical approval for our study was a long process and it took over four months to gain approval and for recruitment to start. At the initial ethics committee meeting it became apparent that the panel had limited understanding about the role of trainee clinical psychologists and ClinPsyD projects. The University research panel were concerned about the safety of the children that would be potentially recruited into the study. Whilst safety of any child should be at the forefront of everyone’s minds our sample proposed that those over 16 and those not from a clinical population should be included. There also appeared to be a lack of understanding about the training ClinPsyD students have in safeguarding and managing distress, as well as, engaging and working with young people from child

placements, and substantial teaching during the course. In addition the panel requested that for those that were 16 and 17 years of age their parents must provide assent, therefore a further parent information sheet with an opt out form was designed and sent out to parents. The panel were concerned about the impact of questionnaires particularly those about psychosis and associated symptoms in case they might trigger something in the participants. However, the research team and supervisors considered the measures very carefully and whether there was a risk of burden and distress and it was agreed that there was a low risk of distress as the questions represented information which young people are exposed to daily via the media and others they come into contact with such as their friends, family or members of their community. This added substantial delays to the recruitment plan, as the researchers were hoping to be able to go into schools/colleges before the summer holidays; this did not happen till September 2015. Many of the changes the panel required were less about the logistical or design aspects of the study but more about the wording of the participant information sheets and the distress policy that could be perceived as being distressing. In order to resolve this, the trainee worked in collaboration with her supervisors to respond to all the concerns that were raised. The trainee further clarified the distress policy by explaining that there would be a breakout room should anyone feel like having a break. The trainee also highlighted that there would also be two researchers present at all times one to be present in the class and one to be available in the breakout room, if anyone needed further support.

#### ***4.1.2. Recruitment***

Initially 14 local schools and local colleges were invited to take part in the research via emails and letters to heads of pastoral care and through head teachers. Phone calls were also made to schools to discuss the research further. Meetings also took

place with teachers to discuss the study in further detail. Many schools who were interested initially, refused in the end once they found out further details. One particular teacher stated that they were concerned that the research may trigger concerns for the students; she believed the school and teachers were ill equipped to deal with it. This raised the question of whether schools had a good understanding about mental health and whether there is adequate support for young people in schools in relation to mental health issues. It could therefore, be hypothesised that the causal beliefs of teachers may influence student's beliefs about causes and outcomes of mental health problems, this needs further exploration. Interestingly, it was found that the schools and colleges that participated in the study had substantial training in mental health issues and were interested in external input and requested a presentation on Clinical Psychology and mental health to their students. Once the recruitment sites had been confirmed we commenced our data collection, however it was evident early on that the South Asian students were less interested in taking part. Those that required assent from parents responded and, we found that 26 parents stated that they did not want their child to participate, this was in comparison to only three White British parents. One may ask the following questions: Was it due to the stigma of mental illness? Or a worry it might trigger something in their child? or was it the concern of their child revealing mental health difficulties within the family? It would be interesting to explore these hypotheses further.

Despite the fact we had a large sample of people who had completed the questionnaires, the South Asian sample was minimal and we had just enough people that we needed for our proposed power calculation for it to be statistically significant (128 in total with 64 in each group). It was hypothesised why parents did not want to take part in the research which supports previous literature in this



area, suggesting that mental health problems are a taboo subject, something to be ashamed of and not talked about within the community, therefore there may be concerns of research highlighting any existing problems (Rathod & Gobbi, 2010; Ng, 1997). During the recruitment stage there was a sense that psychosis and mental health problems in the general population are not openly talked about and there is a sense of fear of what talking about it may elicit.

#### ***4.1.3. Data Analysis***

All the data from the 205 participants that completed the questionnaire was inputted into an excel database and then inputted into SPSS. After separating out the different ethnic groups, the researchers found 173 were of White British or South Asian ethnicity with the majority (109) from the White British group and the latter the minority (64). The researchers agreed that a matched sample of both groups would be appropriate to analyse, and the White British group had 64 randomly selected participants to be included in the analysis using the functions in SPSS. An unequal sample size violates the assumption of homogeneity of variance and therefore it was appropriate to match the samples. The reason 64 were selected was because 64 was the number of our South Asian sample and 128 was the minimal total number required based on our power calculation we had conducted when designing our study. An online programme called “statistics calculators version 3.0” was used to derive an appropriate sample size, using a power analysis prior to commencing the research. The power analysis indicated that a sample size of 128 would be appropriate for a 2 tailed hypothesis (64 in each group). This would allow the researchers to detect a difference between standardised mean differences of 0.05 for causal explanations, with a power of 0.08 and alpha value of  $\alpha = 0.05$ .

#### ***4.1.4. Reliability and Factor analysis***

The trainee completed a number of analyses on the data, initially assessing the reliabilities of all the measures that were included in the study. The majority of the measures yielded decent (above a Cronbach's Alpha value of  $\alpha = 0.80$ ) reliability scores, however one particular measure raised concerns with its low reliability score; the MHLOC (Hill and Bale, 1980) scale and by extension the MHLOO scale (even though its overall reliability score was fair) as they had both been developed and devised together. When the Cronbach's Alpha was originally carried out for the MHLOC scale it came out as originally poor at  $\alpha = 0.667$ . The original paper discussed two subscales within the measure looking at internal control and external control. The factor structure of the 22 items in the questionnaire was examined using principal component analysis. The purpose of this was to identify and compute composite scores for the factors underlying the mental health locus of control scale. Initial eigenvalues indicated that the first 3 factors explained 17%, 9% and 6% of the variance respectively. When eliminating those that did not contribute to the factor structure and failed to meet a minimum criteria of having a primary factor loading of .4 or above, this did not improve the Cronbach's Alpha value instead it made this worse at  $\alpha = .278$ . When the Cronbach's Alpha was originally carried out for the MHLOO scale it was found to be  $\alpha = 0.76$ . Again as with the MHLOC the original paper discussed two subscales within the measure, looking at internal control and external control. Even though this scale had a fair Cronbach's Alpha value, as it had been developed alongside the MHLOC scale, we explored this measure by also doing an exploratory factor analysis. The eigenvalues indicated two factors that explained 25.69% and 8.2% of the variance respectively and all the questions loaded onto either internal locus of origin or external locus of

origin. Therefore, it was decided that we would use the measure as it was but report our findings with caution and put this as a limitation of the study.

The Beliefs About Mental Health Questionnaire (BAMHQ) was a recently developed measure and there is no published data on its reliability and validity as of yet; we conducted an exploratory factor analysis of the items to explore if we obtained similar results to the original researchers. The eigenvalues indicated that there were 3 factor loadings that explained 38%, 12% and 12% of the variance respectively. These were psychosocial, biological and spiritual factors and confirmed the findings reported by the original authors.

#### ***4.1.5. Validity and use of measures***

In hindsight, when looking back at the measures that were utilised in the study, it may have been better to condense these down further. Prior to administering the questionnaire pack a pilot was conducted with 10 young people (between 16-20 years of age) to ascertain if they could understand and respond to the questions and to determine if any were particularly burdensome or lacked clarity. Also to ascertain how long they would take and if they understood the questions asked. The pilot indicated the pack length was sufficient and the time taken to complete each questionnaire pack was between 40-50 minutes, also that the young people had understood the questions that were being asked in the questionnaires. However, during recruitment some of the feedback from students was that they felt the packs were long and some participants did not complete them.

The Mental Health Locus of Control (MHLOC) and Mental Health Locus of Origin (MHLOO) measures could have been replaced with measures that had better internal consistency and reliability that assessed causal beliefs. However, there are limited measures that explore causal beliefs and locus of control in mental health and specifically for psychosis.

#### **4.1.6. Normality**

The trainee checked the distribution of the data both by calculating the z-scores for skewness and kurtosis and by visually inspecting the histograms for each measure. This was carried out for the whole sample ( $N= 205$ ) and the matched sample ( $n=128$ ). For skewness the data had to be close to 0. The z scores were calculated for the data and the cut off for these were  $\pm 1.96$ . Field, (2009) states that large sample sizes give rise to small standard errors therefore, when sample sizes are big, significant values arise from even small deviations from normality. If there is a large sample of 200 or more (in our case initially 205) it is more important to look at the shape of the distribution visually. When we visually inspected the histograms of the data they looked relatively normal in that they followed a “bell-shaped curve”. All data was normally distributed for the whole sample except for the Rosenberg measure where skewness was found to be .757 and the kurtosis was 10.028. Also on the mental health locus of origin (MHLOO) internal scale the kurtosis was 1.092 and on the mental health locus of origin external scale kurtosis was 2.002. From the factor analysis it was known that the Cronbach’s Alpha that the latter measure has issues with its reliability; despite this the data was included in the sample. The trainee also conducted a log transformation and square root transformation, but this did little to improve the kurtosis of the measures. The trainee also assessed the normality for the matched sample and found that all data was normally distributed except the Rosenberg measure, therefore a non-parametric test was used

In addition we checked the normality of our data for the matched sample of 128 participants and found all data were normally distributed again apart from the Rosenberg measure where skewness was found to be .819 and the kurtosis value was 9.441. A non-parametric analysis was conducted with this measure using the

Kruskal-Wallis for a one- way ANOVA and the results were similar to the parametric measure. Also the mental health locus of origin scales were within the required parameters of normality in this sample.

#### ***4.1.7. Results***

The results we found highlight that differences between South Asians and White British population samples do exist. However, we need to be cautious with regards to the generalisability of the results. Henrich, Heine, and Norenzayar (2010) proposed that research is routinely published based on samples drawn from Western, Educated, Industrialised, Rich and Democratic (WEIRD) societies, and often there is an assumption that either there is little variation across human populations, or that these standard subjects are representative of the population. Even though we are not making any claims that these differences must exist in the whole South Asian population, we are suggesting that these differences need to be explored and investigated in a number of sample populations, over a period of time to give us a true picture of causal beliefs and if these change over time as suggested by McCabe and Priebe (2004).

### **5. Final reflections of the overall research process**

Prior to beginning her journey on the ClinPsyD programme, the trainee's experience of conducting research was limited. This work had been her first experience of doctoral level research and being involved with a project from beginning to the end. The trainee's aims for the research were to contribute to the limited literature in this particular area and highlight future work to understand mental health problems, specifically psychosis within the South Asian population, and for it to be feasible within the time restrictions of a Clinical Doctorate. Even though her enthusiasm and commitment to the project remained steady throughout,

there were times when she struggled. These times were particularly noticeable when other aspects of the ClinPsyD programme required her attention, such as busy period during placements, assessment deadlines and exam periods. In order to manage this, the trainee utilised her time management skills and made sure she had a timetable of what she needed to do and when.

Paper 1 was her first experience of conducting a systematic review and she had limited appreciation for the process of completing one. Conducting the review was significantly more taxing than I had anticipated. I was surprised at the significant effort needed to complete what the trainee had initially assumed to be uncomplicated tasks, such as screening abstracts or extracting the data. Also, the trainee had not previously systematically appraised the quality of studies using an assessment framework. The trainee found it interesting to see methodological flaws were present in the studies. This process helped the trainee to think about what good experimental design means.

The trainee had previous experience on her BSc and Masters courses of using SPSS to analyse data however, as was to be expected the analysis in the study was much more complicated and there were many aspects involved. The trainee found herself requiring a significant amount of time to do background reading on factor analysis, ANOVA'S and ANCOVA'S , MANOVA's and MANCOVA'S, Mediation and Moderation analysis to get a good understanding of what was required to conduct them.

### ***5.1. Areas for future research***

As paper 1 and 2 have highlighted, further research in to this particular area is needed. One thing the empirical study lacked was in depth information about causal beliefs for psychosis. This could be done by interviews using a standardised measure to understand the reason behind these beliefs, and what influences these

beliefs to continue. It would also be useful to explore preferred treatment between the two groups and explore if these differ in the UK. Another aspect of research need triggered by the data collection and recruitment was how schools and colleges deal with mental health problems and psychosis. Also if their responses differ with South Asians compared to White British young people and if differences do exist is this down to being culturally sensitive or something else? The systematic review highlighted the limited research in the area of causal beliefs for psychosis in South Asian populations, but an even greater need is the need of a standardised culturally sensitive tool to measure causal beliefs. Furthermore, research in South Asian countries also requires the exploration of the impact of education, living in different areas and religious beliefs on causal explanations.

Greater awareness of causal beliefs can have beneficial effects on mental health policy and planning both on a national level where there is recognition of a true prevalence and burden of mental health problems. The 2011 consensus reported that in the UK today there are currently 3,078,374 people that identify as British South Asians and the demographic data for South Asians indicate that they are less likely than both the general population and other ethnic minority groups to access mental health services. Therefore, there is a vital role that clinicians need to play in order to understand cultural beliefs about psychosis. It is positive to note that some work has begun on cultural adaptations of psychosocial interventions (Rathod, Kingdon, Pinninti, Turkington, & Phiri, 2015) which have received much success. Also, on a local level where training of health professionals to take into consideration a patients causal models may contribute towards early diagnosis of mental health problems.

It is also important to acknowledge that even though we talk about culture specific rather than generic services for South Asians and a need to understand the causal

belief models and their impact on stigma. We also need to appreciate that health care providers do struggle to offer accessible and appropriate care to ethnic minority populations. These struggles occur against the backdrop of socio-economic disadvantage and social exclusion, in which the needs of the ethnic minority communities may be ignored or misinterpreted (Bhui & Bhugra, 2002) Therefore, it is important to continue the research in this area and looking at the best ways in which to move forward. The research has already influenced the trainee's own clinical practice in terms of wanting to encourage in house training for colleagues and having discussions about spiritual and supernatural interpretations and explanations of psychotic experiences. As well as noncompliance of medication associated with beliefs about mental health problems.



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# APPENDICES

**Appendix 1: PIS 16-17 yrs.**  
**SCHOOL OF PSYCHOLOGICAL SCIENCES**

**Participant Information Sheet (16-17yrs)**

You have been invited to take part in a research study that is being carried out by the University of Manchester. The research is part of two Doctorate projects. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Please ask if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part. Thank you for taking the time to read this.

**Who will conduct the research?**

The research will be conducted by Aisha Mirza and Sehar Ahmed who are based at:

Section for Clinical and Health Psychology  
School of Psychological Sciences  
University of Manchester  
2nd Floor Zochonis Building  
Brunswick Street  
Manchester M13 9PL

**Title of the Research**

A study exploring cultural differences and beliefs about attitudes towards Psychosis

**What is the aim of the research?**

This research aims to explore how people with psychosis are perceived, how these perceptions differ in different cultures, and how perceptions of psychosis influence help seeking behaviours.

**Why have I been chosen?**

Schools and colleges in the local area have been chosen to take part in the research. We hope to include up to 150 students in the research project overall.

**What would I be asked to do if I took part?**

If you agree to participate in this study you will be asked to fill out a set of questionnaires. The questionnaires include questions regarding perceptions of and attitudes towards people with psychosis. The estimated time for completion is 45 minutes.

### **What happens to the data collected?**

The data will be used for research purposes as part of two thesis projects for the Doctorate in Clinical Psychology at the University of Manchester. The results aim to be published in peer-reviewed articles, but you will be in no way identifiable in the work produced.

### **How is confidentiality maintained?**

The data will remain strictly confidential; you will be given a study identification number and the questionnaires completed will only be identifiable by the identification number. Your name will not be used or published in any material related to the study. However if any concerns are raised with regards to your safety or the safety of others, then the researchers have a duty of care to share this information with relevant parties.

### **What happens if I do not want to take part or if I change my mind?**

You do not have to take part in the study. If you decide to take part and then whilst you are completing the questionnaires you change your mind, you can stop completing them and withdraw without giving any reasons. As the data being collected are anonymous, you cannot be withdrawn once the questionnaires have been completed and returned to the researchers.

### **Will I be paid for participating in the research?**

As this is a research study, there will not be any direct benefits of taking part beyond contributing to valuable scientific research. When the results are written up, we would be happy to send you a copy of the final report if you would like one. If you wish to receive copies then please leave your details or email the researchers on the emails provided at the end of this information sheet.

### **What is the duration of the research?**

The duration of the study will be 1 session that would last 45 minutes.

### **Where will the research be conducted?**

The research will be conducted at your school/college

### **Will the outcomes of the research be published?**

The results aim to be published in a doctoral thesis and peer-reviewed articles.

### **Disability and Barring Service (DBS) Check (if applicable)**

Both researchers are employed by the NHS as Trainee Clinical Psychologists and have undergone the enhanced CRB and DBS checks.

### **Who has reviewed the research project?**

The project has been reviewed by the University of Manchester Research Ethics Committee 6.

### **What are the possible disadvantages and risks of taking part?**

Every care will be taken to ensure safety during the administration of questionnaires. The study poses no disadvantages or risks.

If you are concerned about taking part, you are free to email questions to the researchers and decide later whether you would like to take part.

If you are concerned by any of the issues raised in this study, please speak to the researchers.

What if I want to complain?

If there are any issues regarding this research you should contact the researcher in the first instance, [aisha.mirza@manchester.ac.uk](mailto:aisha.mirza@manchester.ac.uk) and/or [sehar.ahmed@postgrad.manchester.ac.uk](mailto:sehar.ahmed@postgrad.manchester.ac.uk). However, if you would prefer not to discuss with members of the research team, please contact their supervisor Professor Anthony P Morrison, by email on: [Anthony.p.morrison@manchester.ac.uk](mailto:Anthony.p.morrison@manchester.ac.uk).

If you wish to make a formal complaint about the conduct of the research you can contact a Research Governance and Integrity Manager, Research Office, Christie Building, University of Manchester, Oxford Road, Manchester, M13 9PL, by emailing: [research.complaints@manchester.ac.uk](mailto:research.complaints@manchester.ac.uk) or by telephoning 0161 275 2674 or 275 8093

### **Where can I obtain further information if I need it?**

If you have any further questions you can contact Aisha Mirza or Sehar Ahmed by email on [aisha.mirza@manchester.ac.uk](mailto:aisha.mirza@manchester.ac.uk) [sehar.ahmed@postgrad.manchester.ac.uk](mailto:sehar.ahmed@postgrad.manchester.ac.uk) alternatively, you can contact Aisha and Sehar's supervisor, Professor Anthony P Morrison, by email on: [Anthony.p.morrison@manchester.ac.uk](mailto:Anthony.p.morrison@manchester.ac.uk).

**This project has been approved by the  
School of Psychological Sciences Research Ethics Committee 6**

**Appendix 2: PIS 18-12 yrs.**  
**SCHOOL OF PSYCHOLOGICAL SCIENCES**  
**Participant Information Sheet (18-21yrs)**

You have been invited to take part in a research study that is being carried out by the University of Manchester. The research is part of two Doctorate projects. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Please ask if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part. Thank you for taking the time to read this.

**Who will conduct the research?**

The research will be conducted by Aisha Mirza and Sehar Ahmed who are based at:

Section for Clinical and Health Psychology  
School of Psychological Sciences  
University of Manchester  
2nd Floor Zochonis Building  
Brunswick Street  
Manchester M13 9PL

**Title of the Research**

A study exploring cultural differences and beliefs about attitudes towards Psychosis

**What is the aim of the research?**

Stigma against mentally ill people is a major problem and research suggest that in today's society mental illness and violence are often seen as being linked, which carries serious consequences for those with psychosis in terms of facing discrimination and a sense of isolation from society. Studies on stigma and mental illness have been carried out in many countries and the evidence suggests that discrimination and stigma differs between countries and cultures. The researchers aim to extend the current research by examining cultural differences in causal explanations and help seeking behaviors given for psychosis between South Asian and White British cultures.

**Why have I been chosen?**

Schools and colleges in the local area have been chosen to take part in the research as part of the governments Health and Wellbeing agenda. We hope to include up to 150 students in the research project overall.

### **What would I be asked to do if I took part?**

If you agree to participate in this study you will be asked to fill out a set of questionnaires. The questionnaires include questions regarding Stigma, and beliefs about psychosis and people with psychosis. The estimated time for completion is 45 minutes.

### **What happens to the data collected?**

The data will be used for research purposes as part of two thesis projects for the Doctorate in Clinical Psychology at the University of Manchester. The results aim to be published in peer-reviewed articles, but you will be in no way identifiable in the work produced.

### **How is confidentiality maintained?**

The data will remain strictly confidential; you will be given a study identification number and the questionnaires completed will only be identifiable by the identification number. Your name will not be used or published in any material related to the study. However if any concerns are raised with regards to your safety or the safety of others, then the researchers have a duty of care to share this information with relevant parties.

### **What happens if I do not want to take part or if I change my mind?**

You do not have to take part in the study. If you decide to take part and then later change your mind, you can withdraw without giving any reasons, and, if you wish, your data will be destroyed. Your decision will not affect any aspect of education. As the data being collected are anonymous, you cannot be withdrawn once the questionnaires have been completed and returned to the researchers.

### **Will I be paid for participating in the research?**

As this is a research study, there will not be any direct benefits of taking part beyond contributing to valuable scientific research. When the results are written up, we would be happy to send you a copy of the final report. If you wish to receive copies then please leave your details or email the researchers on the emails provided at the end of this information sheet.

### **What is the duration of the research?**

The duration of the study will be 1x 45 minutes.

### **Where will the research be conducted?**

The research will be conducted at your school/college



### **Will the outcomes of the research be published?**

The results aim to be published in a doctoral thesis and peer-reviewed articles.

### **Disability and Barring Service (DBS) Check (if applicable)**

Both researchers are employed by the NHS as Trainee Clinical Psychologists and have undergone the enhanced CRB and DBS checks.

### **Who has reviewed the research project?**

The project has been reviewed by the University of Manchester Research Ethics Committee 6.

### **What are the possible disadvantages and risks of taking part?**

Every care will be taken to ensure safety during the administration of questionnaires. The study poses no disadvantages or risks. If you are concerned about taking part, you are free to email questions to the researchers and decide later whether you would like to take part. If you are concerned by any of the issues raised in this study, please speak to the researchers.

What if I want to complain?

If there are any issues regarding this research you should contact the researcher in the first instance, [aisha.mirza@manchester.ac.uk](mailto:aisha.mirza@manchester.ac.uk) and/or [sehar.ahmed@postgrad.manchester.ac.uk](mailto:sehar.ahmed@postgrad.manchester.ac.uk). However, if you would prefer not to discuss with members of the research team, please contact their supervisor Professor Anthony P Morrison, by email on:

[Anthony.p.morrison@manchester.ac.uk](mailto:Anthony.p.morrison@manchester.ac.uk).

If you wish to make a formal complaint about the conduct of the research you can contact a Research Governance and Integrity Manager, Research Office, Christie Building, University of Manchester, Oxford Road, Manchester, M13 9PL, by emailing:

[research.complaints@manchester.ac.uk](mailto:research.complaints@manchester.ac.uk) or by telephoning 0161 275 2674 or 275 8093

### **Where can I obtain further information if I need it?**

If you have any further questions you can contact Aisha Mirza or Sehar Ahmed by email on [aisha.mirza@manchester.ac.uk](mailto:aisha.mirza@manchester.ac.uk) [sehar.ahmed@postgrad.manchester.ac.uk](mailto:sehar.ahmed@postgrad.manchester.ac.uk) alternatively, you can contact Aisha and Sehar's supervisor, Professor Anthony P. Morrison, by email on: [Anthony.p.morrison@manchester.ac.uk](mailto:Anthony.p.morrison@manchester.ac.uk).

**This project has been approved by the  
School of Psychological Sciences Research Ethics Committee 6**

**Appendix 3: Parent information sheet****Research Study – Parent Information Sheet*****Dear Parent***

***The researchers at the University of Manchester and the head teacher of your child's school has agreed to take part in a study exploring cultural differences and beliefs about attitudes towards Psychosis. We would like your child to be part of this study and very much hope you will agree for your child to take part***

**Title of the Research**

A study exploring cultural differences and beliefs about and attitudes towards Psychosis

**What is the aim of the research?**

Stigma against mentally ill people is a major problem and research suggest that in today's society mental illness and violence are often seen as being linked, which carries serious consequences for those with psychosis in terms of facing discrimination and a sense of isolation from society. Studies on stigma and mental illness have been carried out in many countries and the evidence suggests that discrimination and stigma differs between countries and cultures. The researchers aim to extend the current research by examining cultural differences in causal explanations and help seeking behaviors given for psychosis between South Asian and White British cultures.

**Who has reviewed the research project?**

The project has been reviewed by the University of Manchester Research Ethics Committee 6.

**What would your child be asked to do if your child took part?**

If you agree for your child to participate in this study they will be asked to fill out a set of questionnaires. The questionnaires include questions regarding Stigma, and beliefs about psychosis and people with psychosis. The estimated time for completion is 45 minutes.

**How is confidentiality maintained?**

Your child's name will only appear on the consent form, which will be stored in a locked office at The University of Manchester. In all other data each participant will be identified by a unique reference. Demographics (gender, age, religion, ethnicity, school) will need to be collected in order to describe the sample and to which population the results can be generalized to. The data will be used only for the purpose of informing the research questions in this study, and will only be accessed by the research team. However If any concerns are raised with regards to your child's safety or the safety of others, then the researchers have a duty of care to share this information with relevant parties.

**What happens to the data?**

Summaries of our findings will be given to the school and will be available to interested families. Information collected will be kept at the University of Manchester and will remain confidential to the research team. Your child will be in no way identifiable in any reports that are produced.

**What are the possible benefits of taking part?**

As this is a research study, your child will not receive any direct benefits from taking part beyond contributing to valuable scientific research. When the results are written up, we would be happy to send you a copy of the final report.

**What are the possible disadvantages and risks of taking part?**

Every care will be taken to ensure your child's safety during the course of the study. The task poses no disadvantages or risks.

**What happens if I do not want my child to take part or if I change my mind?**

It is up to you to decide whether or not your child takes part. If you decide that you would like your child to take part, you DO NOT need to do anything; your child will simply be asked to complete the questionnaire in school. Even if you or your child later change your mind, you are still free to withdraw without giving a reason and without detriment to yourself or your child. Similarly, your child will also be asked for consent before starting the survey and she or he will be free to withdraw. As the data being collected are anonymous, your child cannot be withdrawn once the questionnaires have been completed and returned to the researchers. If you do not agree to your child taking part, please fill out the opt-out form below and return it to the school within two weeks.

**Who will conduct the research?**

Principal investigators: Aisha Mirza and Sehar Ahmed  
School of Psychological Sciences, The University of Manchester, Oxford Rd, Manchester M13 9PL

Emails: [aisha.mirza@manchester.ac.uk](mailto:aisha.mirza@manchester.ac.uk) and [sehar.ahmed@postgrad@manchester.ac.uk](mailto:sehar.ahmed@postgrad@manchester.ac.uk)

If you want to receive further information about this research, please contact the principal investigator.

**What if something goes wrong?**

*If you are upset or concerned by any of the issues raised in this questionnaire/study, please speak to the principal investigators Aisha and Sehar or your child's teacher, or contact one of the following charities:*

Samaritans, 08457 90 90 90

Mind, 020 8519 2122

**What if I want to complain?**

If there are any issues regarding this research you should contact the researcher in the first instance, [aisha.mirza@manchester.ac.uk](mailto:aisha.mirza@manchester.ac.uk) and/or [sehar.ahmed@postgrad.manchester.ac.uk](mailto:sehar.ahmed@postgrad.manchester.ac.uk). or your child's teacher, or contact one of the following charities:

Samaritans, 08457 90 90 90

Mind, 020 8519 2122

However, if you would prefer not to discuss with members of the research team, please contact their supervisor Professor Anthony P Morrison, by email on:

[Anthony.p.morrison@manchester.ac.uk](mailto:Anthony.p.morrison@manchester.ac.uk).

If you wish to make a formal complaint about the conduct of the research you can contact a Research Governance and Integrity Manager, Research Office, Christie Building, University of Manchester, Oxford Road, Manchester, M13 9PL, by emailing: [research.complaints@manchester.ac.uk](mailto:research.complaints@manchester.ac.uk) or by telephoning 0161 275 2674 or 275 8093

**This project has been approved by the**

**School of Psychological Sciences Research Ethics Committee 6**

*University of Manchester*

*School of Psychological Sciences*

## **OPT-OUT FORM**

**Title of project: A study exploring cultural differences and beliefs about attitudes towards Psychosis**

Please fill out this form if you do NOT give permission for your child to take part in the above study. If you DO give permission, you do not have to do anything.

**Name of parent:** ..... **Signed:** ..... **Date:** .....

**Name of researcher:** ..... **Signed:** ..... **Date:** .....

**This project has been reviewed and approved by the University of Manchester Research Ethics Committee 6.**

**Appendix 4: Participant Consent form**

**SCHOOL OF PSYCHOLOGICAL SCIENCES**

**Participant Consent form**

**Title of Project:**

**A study exploring cultural differences in beliefs about and attitudes towards Psychosis.**

1. I confirm that I have read the attached information sheet on the above project and have had the opportunity to consider the information and ask questions and had these answered satisfactorily.	YES/NO
2. Have you received enough information about the study?	YES/NO
3. Do you understand that if you do not want to take part in the study after you do enter you are free to withdraw:-  * without having to give a reason for withdrawing  * without detriment to you	YES/NO
4. I understand that as the data being collected is anonymous, I cannot be withdrawn once the questionnaires have been completed and returned to the researchers.	YES/NO
5. Do you agree to take part in this study?	YES/NO

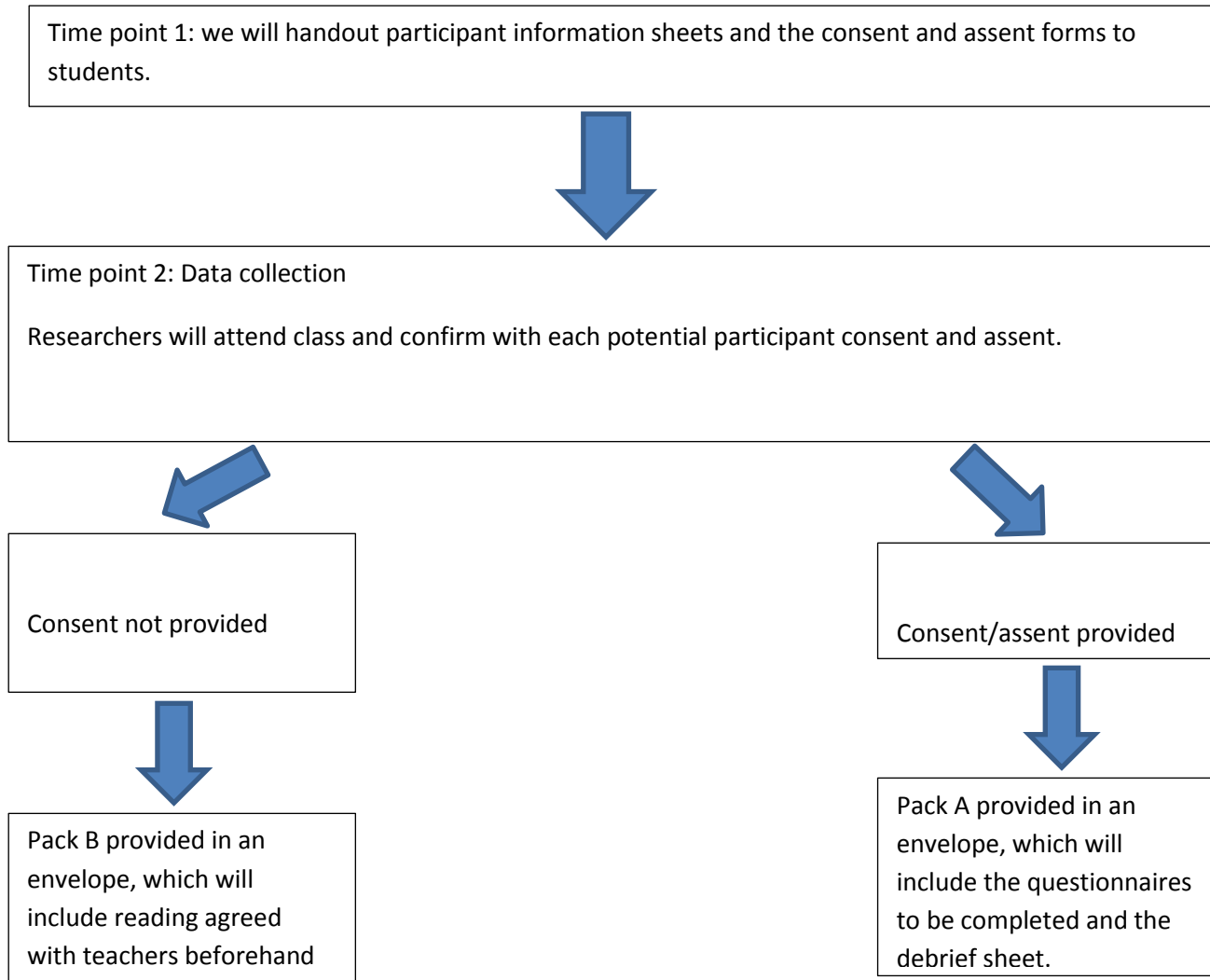
**Name of participant:** ..... **Signed:** ..... **Date:** .....

**Name of researcher:** ..... **Signed:** ..... **Date:** .....

**This project has been approved by the  
School of Psychological Sciences Research Ethics Committee 6**

## Appendix 5: Flow chart of data collection procedure

**Figure 3: A flow chart of data collection procedure**



## Appendix 6: Distress Protocol

### Distress Protocol

1. At the start of the lesson the researchers will go around and check informed consent/assent forms. They will inform all students that it is O.K. to leave the room if they wish to take a break OR if they wish to withdraw from the research without having to give a reason. If they wish to take a break from the session for any reason they can go into a separate room where one of the researchers will be present.
2. If any participant wishes to take time out the second researcher will be in another room to ask if they have any further questions or concerns about the study. If they do then the researcher will remind them that they can withdraw if they wish to and provide them with the debrief sheet and signpost them to relevant organisations. Both the researchers are trained professionals and have core competencies to deal with such issues including being warm, empathic at non-judgemental as well as maintaining professional boundaries. They will also suggest that they can speak to a member of the pastoral team if they would be happy to do so.
3. If a participant has left the session and wishes to re-join the group, they may do so.
4. Towards the end of the questionnaire administration, all participants will be debriefed by the researchers to ensure that no-one leaves the room in a distressed state.
5. At the end of the lesson all students will be reminded that should they have any questions or concerns about what they have done in the lesson then one of the researchers would be available in an allocated room to discuss these
6. questions/ concerns.
7. All students will be advised that should they have any concerns about what they have completed in the lesson they can speak to the school/ college pastoral team. A debrief sheet will be provided in Pack A for all students who have completed the study. This will provide a debrief and include contact details of helplines and charities which they can contact if they feel distress after the study has finished.
8. If a risk situation emerges i.e. risk to self or others is expressed, then a thorough risk assessment will be conducted and appropriate actions and protocols will be followed to manage the risk. All risk issues will be reported to Professor Anthony P Morrison for supervision, who is a Professor of Clinical Psychology with over 20 years' experience of working in clinical settings.



## Appendix 7: Participant Debrief sheet

### A study exploring cultural differences and beliefs about and attitudes towards Psychosis

#### Participant Debrief Sheet

Thank you for completing the questionnaires. We hope that you have found it interesting and have not been upset by any of the topics discussed. However, if you have found any part of this experience to be distressing and you wish to speak to one of the researchers, please contact: [aisha.mirza@manchester.ac.uk](mailto:aisha.mirza@manchester.ac.uk) [sehar.ahmed@postgrad.manchester.ac.uk](mailto:sehar.ahmed@postgrad.manchester.ac.uk). If you are upset, please speak to a member of staff or contact one of the following organisation helplines:

<b>Organisations</b>
<p><b>Samaritans</b> 0845 7909090 Open 24 hours a day. They offer confidential emotional support by telephone, email, text, letter and face to face.</p>
<p><b>Rethink Mental Illness:</b> 0300 5000 927 (practical advice and information)</p>
<p><b>NHS Direct</b> 111 Open 24 hours a day. They provide health advice and information</p>

## Appendix 8: Ethics Approval letter

Ref: *ethics/15173*

Prof Anthony Morrison  
School of Psychological Sciences  
Zochonis Building S27

25<sup>th</sup> August 2015

Dear Prof Morrison

Research Governance, Ethics and Integrity  
2<sup>nd</sup> Floor Christie Building  
The University of Manchester  
Oxford Road  
Manchester  
M13 9PL  
Tel: 0161 275 2206/2674  
Email: [research.ethics@manchester.ac.uk](mailto:research.ethics@manchester.ac.uk)

**Study title:** A study exploring cultural differences in beliefs about and attitudes towards psychosis

**Research Ethics Committee 6**

I write to thank you, Miss Mirza and Mrs Ahmed for coming to meet the Committee on 15<sup>th</sup> April 2015. I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form and supporting documentation as submitted and approved by the Committee.

This approval is effective for a period of five years. If the project continues beyond that period an application for amendment must be submitted for review. Likewise, any proposed changes to the way the research is conducted must be approved via the amendment process (see below). Failure to do so could invalidate the insurance and constitute research misconduct.

You are reminded that, in accordance with University policy, any data carrying personal identifiers must be encrypted when not held on a secure university computer or kept securely as a hard copy in a location which is accessible only to those involved with the research.

**Reporting Requirements:**

You are required to report to us the following:

- (2) [Amendments](#)
- (3) [Breaches and adverse events](#)
- (4) [Notification of Progress/End of the Study](#)

**Feedback**

It is our aim to provide a timely and efficient service that ensures transparent, professional and proportionate ethical review of research with consistent outcomes, which is supported by clear, accessible guidance and training for applicants and committees. In order to assist us with our aim, we would be grateful if you would give your view of the service that you have received from us by completing a feedback sheet [<https://survey.manchester.ac.uk/pssweb/index.php/535286/lang-en>]

We hope the research goes well.

Yours sincerely,



Ms. Genevieve Pridham  
Secretary to University Research Ethics Committee 2 and 6.

### **A study exploring cultural differences in beliefs about and attitudes towards Psychosis.**

---

#### **1. Description of Study 1:**

The focus of this study is to investigate whether there are cultural differences between white British and South Asian populations in their perceptual views of causal explanations in Psychosis. The study will also attempt to explore factors, including causal

explanations, self-esteem, perceptions of control over illness, group identification and previous contact with mental illness, which may mediate and moderate the relationship between ethnicity and causal explanations in Psychosis.

#### **Description of Study 2:**

between white British and South Asian populations in their perceptions of help-seeking behaviours and willingness to disclose in psychosis. The focus of this study is to investigate whether there are cultural differences seeking behaviours and willingness to disclose in psychosis. The study will also attempt to explore factors, including causal explanations, self-esteem, perceptions of control over illness, group identification and previous contact with mental illness, which may mediate and moderate the relationship between ethnicity and help-seeking and ethnicity and willingness to disclose in psychosis

## **2. Participants**

### **1.1 Inclusion Criteria**

- 1) Between the age of 16-21
- 2) In further education

### **1.2 Exclusion**

- 1) Below 16 years old and over 21.
- 2) Non-English speaking ( as measures are in English)

### **3. Method**

Students at participating colleges and schools will receive a copy of the participant information sheet, consent and assent forms.

The researchers (SA and AM) will hand these out at time point one.

At time point two (one week later), the researchers will attend the lessons and confirm with each potential participant their consent and assent.

At no point will the teachers collect the consent/assent forms or be present in the room to protect the anonymity of those wishing to take part or not. If a student does not provide consent/assent they will be provided with a windowless envelope with the words 'Pack B' on the front. This will contain reading material and work provided by and agreed with the teachers.

If a student provides consent/assent they will be provided with a windowless envelope with the words 'Pack A' on the front. This will contain the battery of study questionnaires as well as a description of what Psychosis is. This will also be presented to the participants prior to administration.

Participants will then be asked to open the packs and complete the work inside. Once the session is completed the participants will be asked to put the work/questionnaires in the envelopes, seal them and return to the researcher. Once the data has been collected and pack A and B have been separated by the researchers, this will then be transferred to the secure filing cabinet at the University of Manchester. In terms of the analysis of the data a quantitative design will be used, looking at a group comparison between South Asian and White British young people.

#### **3.1 Measures**

The measures that comprise the battery of questionnaires are:

- 1) Demographics (including prior contact with someone with psychosis).
- 2) CAPE will be used to see if personal psychotic experiences affect attitudes towards people with psychosis.
- 3) Rosenberg Self-Esteem Scale (1965) will be used to measure self-esteem.
- 4) Beliefs about Mental Health Problems questionnaire (Carter, 2014 in prep) will be used to measure stigmatising beliefs and attitudes towards mental health.
- 5) Attributions Questionnaire (Corrigan, 2005) will be used and adapted

by using culture specific names alongside the vignettes. The measure explores causal explanations.

- 6) The Orientation to Seeking Professional Help (Fischer and Turner, 1970) will be used to measure help-seeking behaviours. A 29 item or 10 item version will be used.
- 7) Secrecy measure will be used to assess willingness to disclose.
- 8) Mental Health Locus of Control Scale (Hill & Bale, 1980) will be used to measure beliefs around controllability over mental health experiences.
- 9) Mental Health Locus of Origin Scale (Hill & Bale, 1980) will be used to measure causal explanations about mental health.
- 10) Group Identification measure (adapted from Hornsey & Hogg, 2000) will be used to assess how much the South Asian sample relates to being British.
- 11) The supernatural attitudes questionnaire (adapted from Kulhara et al 2000) will be used to see what causal explanations are given for psychosis.
- 12) Contact intentions questionnaire will be used to see if people will avoid or interact with people who have mental health problems.

### **3.4 Identifying and recruitment of potential participants.**

Head teachers and school faculty members from local secondary schools and colleges across the North West will be contacted via letter and email, inviting their students to take part in the research study. In exchange for help with recruitment, the trainee will be offering a teaching session on a topic, which may be relevant to the school's academic curriculum. Alternatively, teaching on topics such as Psychology or Stigma could be offered, especially given that many schools are now adopting and promoting an anti-stigma approach. The topic will be negotiated alongside teaching staff at a further date.

### **4. Potential risks and burdens**

It is hoped that the study will result in minimal distress to participants. Whilst it is hoped that the study will cause minimal impact, the researcher recognises that some sensitive issues could arise. In order to reduce distress the researcher will remind participants prior to the study commencing that their participation is voluntary and they are free to withdraw at any point from the study without providing a reason. They will be informed about the limits of confidentiality, which will be breached if there are concerns regarding their safety or safety of others

as it is our duty of care to share such information with relevant parties. It will be explicitly stated to participants prior to the study commencing that they are free not to answer any questions, if they wish not to do so. If anybody needs to take a break they are free to leave the classroom and go to another room where one of the researchers will be present. The researcher will remind the participant that they can withdraw at any time or if they have any concerns or questions about the study these can be clarified. If they wish to re-join they can do so, but if they wish to withdraw the participant debrief sheet will be handed to them and they will be signposted to relevant organisations or advised to approach their school/college pastoral team members. The researchers are both Trainee Clinical Psychologists who, at the time of the study, will be in their final year of their post-doctoral course. They are equipped with key skills to manage distress, as they work within the NHS 4 days a week as part of multi-disciplinary teams that treat people with mental health difficulties that present with varying degrees of distress. The research is supervised by Professor of Clinical Psychology (Anthony Morrison) who has over 20 years of supervising students and other Clinical Psychologists and academics. Therefore the researchers are able to seek further guidance and supervision as and when required.

The questionnaires should take approximately 45 minutes to complete and with the option of having a break available it is hoped the burden in the students will be minimal. The normal class sessions last an hour so there should be no additional burden to what they already receive.

## **6. Confidentiality**

The researchers will mitigate the risk of teachers unduly influencing students to take part in the study by giving out and collecting the consent/assent forms and participant information sheet.

This will ensure the confidentiality of participants and their anonymity, no personally identifiable information will be collected in this study except for the consent forms. The consent forms will be placed in separate locked filing cabinets to ensure confidentiality and will be stored separately from any research data. The filing cabinet

is located in a locked office belonging to the Clinical Supervisor (Professor Morrison) in the Zochonis building and will only be accessible to the researchers. Immediately after the data collection the data will be returned to the University of Manchester and stored in a locked filing cabinet in a locked room by the researchers. Participants will have a study ID randomly generated and a database will be created to input the data collected. The database will not have any participant identifiable information such as first or last names and this will be stored on a secure university drive and encrypted with a password.

## Appendix 10: Questionnaire Pack

Participant ID:.....

Date:.....

### Participant Demographic Form

1. Age: *(please indicate)* \_\_\_\_\_

	<b>Male</b>	<b>Female</b>
<b>2. Gender:</b>	<input style="width: 50px; height: 40px;" type="checkbox"/>	<input style="width: 50px; height: 40px;" type="checkbox"/>

3. Name of educational establishment : *( please insert name of school/college):*

\_\_\_\_\_

**4. Ethnicity:**

**What is your ethnic group?** Choose one option that best describes your ethnic group or background.

**White**

- White – British
- White – Irish
- White Gypsy or Irish
- Other White, please specify: \_\_\_\_\_

**Mixed / Multiple ethnic groups**

- Mixed White and Black Caribbean
- Mixed White and Black African
- Mixed White and Asian
- Other mixed background, please specify: \_\_\_\_\_

**Asian / Asian British**

- Asian – Indian
- Asian – Pakistani
- Asian – Bangladeshi
- Asian – Chinese
- Other Asian, please specify: \_\_\_\_\_

**Black / African / Caribbean / Black British**

- Black – African
- Black - Caribbean
- Other Black, please specify: \_\_\_\_\_

**6. Religion:**

**What is your religion? Please choose one option:**

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li><input type="checkbox"/> No religion</li> <li><input type="checkbox"/> Christian</li> <li><input type="checkbox"/> Buddhist</li> <li><input type="checkbox"/> Hindu</li> <li><input type="checkbox"/> Prefer not to say</li> </ul> | <ul style="list-style-type: none"> <li><input type="checkbox"/> Jewish</li> <li><input type="checkbox"/> Muslim</li> <li><input type="checkbox"/> Sikh</li> <li><input type="checkbox"/> Other religion, please specify: _____</li> </ul> |
|---|---|



**7. First Language: (Please specify)**

---

**8. Who do you live with?**

---

**9. Any previous contact with any mental health services? (If yes please specify)**

Yes  No

---

**10. Do you currently experience mental health problems, or did you experience them in the past?  
(If yes please specify)**

Yes  No  Prefer not to say

---

**11. Any previous contact with another person or people with mental health difficulties?  
(If yes please specify)**

Yes  No

---

**CAPE (Community Assessment of Psychotic Experiences)**

**The following questions are common experiences reported by young people.  
Please answer the following with ticks in the appropriate boxes.**

1. Do you ever feel as if you are being persecuted in some way?

(please tick)

Never

Sometimes

Often

Nearly always

**If you ticked "never", please go to question 2**

**If you ticked "sometimes", "often" or "nearly always" please indicate how distressed you are by this experience:**

(Please tick)

Not distressed

A bit distressed

Quite distressed

Very distressed

2. Do you ever feel as if there is a conspiracy against you?

(Please tick)

Never

Sometimes

Often

Nearly always

**If you ticked "never", please go to question 3**

**If you ticked "sometimes", "often" or "nearly always" please indicate how distressed you are by this experience:**

(please tick)

Not distressed

A bit distressed

Quite distressed

Very distressed

3. Do you ever feel as if you are destined to be someone very important?

(please tick)

Never

Sometimes

Often

Nearly always

**If you ticked "never", please go to question 4**

**If you ticked "sometimes", "often" or "nearly always" please indicate how distressed you are by this experience:**

(please tick)

Not distressed       A bit distressed       Quite distressed       Very distressed

4. Do you ever feel as if the thoughts in your head are not your own?

(please tick)

Never       Sometimes       Often       Nearly always

**If you ticked "never", please go to question 5**

**If you ticked "sometimes", "often" or "nearly always" please indicate how distressed you are by this experience:**

(please tick)

Not distressed       A bit distressed       Quite distressed       Very distressed

5. Do you ever feel as if you are under the control of some force or power other than yourself?

(please tick)

Never       Sometimes       Often       Nearly always

**If you ticked "sometimes", "often" or "nearly always" please indicate how distressed you are by this experience:**

(please tick)

Not distressed       A bit distressed       Quite distressed       Very distressed

### Rosenberg Self-Esteem Scale (Rosenberg, 1965)

The scale is a ten item Likert scale with items answered on a four point scale from strongly agree to strongly disagree. Instructions: Below is a list of statements dealing with your general feelings about yourself. If you strongly agree, circle **4**. If you agree with the statement, circle **3**. If you disagree, circle **2**. If you strongly disagree, circle **1**.

	Strongly disagree			Strongly agree
1. On the whole, I am satisfied with myself.	1	2	3	4
2. At times, I think I am no good at all.	1	2	3	4
3. I feel that I have a number of good qualities.	1	2	3	4
4. I am able to do things as well as most other people.	1	2	3	4
5. I feel I do not have much to be proud of.	1	2	3	4
6. I certainly feel useless at times.	1	2	3	4
7. I feel that I'm a person of worth, at least on an equal plane with others.	1	2	3	4
8. I wish I could have more respect for myself.	1	2	3	4
9. All in all, I am inclined to feel that I am a failure.	1	2	3	4
10. I take a positive attitude toward myself.	1	2	3	4

### Beliefs about mental health problems questionnaire

We are interested in what **you** think may be the cause of mental health problems. As people are very different, there is no correct answer for this question. We are most interested in your own views about the factors that you think cause mental health problems rather than what others think. Below is a list of possible causes for mental health problems. Please indicate how much you agree or disagree by ticking the appropriate box.

Possible causes	Strongly Disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
Drug or alcohol use					
Traumatic event in childhood (e.g. loss of a loved one, abuse, neglect)					
Traumatic event in adulthood (e.g. loss of a loved one, abuse)					
Recent stress (e.g. financial problems, relationship problems, work stress)					
A personal sensitivity (e.g. bottling feelings up, overthinking, unstable personality)					
Family history (genes)					
Chemical imbalance in the brain or brain disease					
The result of religious/spiritual forces					



10. How irritated would you feel by Harry?

**1 2 3 4 5 6 7 8 9**  
Not at all very much

11. How dangerous would you feel Harry is?

**1 2 3 4 5 6 7 8 9**  
Not at all very much

12. How much do you agree that Harry should be forced into treatment with his doctor even if he does not want to?

**1 2 3 4 5 6 7 8 9**  
Not at all very much

13. I think it would be best for Harry's community if he were put away in a psychiatric hospital.

**1 2 3 4 5 6 7 8 9**  
Not at all very much

14. I would share a car pool with Harry every day.

**1 2 3 4 5 6 7 8 9**  
Not likely very likely

14. How much do you think an asylum, where Harry can be kept away from his neighbours, is the best place for him?

**1 2 3 4 5 6 7 8 9**  
Not at all very much

16. I would feel threatened by Harry.

**1 2 3 4 5 6 7 8 9**  
Not at all very much

17. How scared of Harry would you feel?

**1 2 3 4 5 6 7 8 9**  
Not at all very much

18. How likely is it that you would help Harry?

**1 2 3 4 5 6 7 8 9**  
Definitely Would not help definitely would help

19. How certain would you feel that you would help Harry?

**1 2 3 4 5 6 7 8 9**  
Not at all Certain absolutely certain

20. How much sympathy would you feel for Harry?

**1 2 3 4 5 6 7 8 9**  
Not at all very much



21. How responsible, do you think, is Harry for his present condition?

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
Not at all							very much	
Responsible							Responsible	

22. How frightened of Harry would you feel?

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
Not at all							very much	

23. If I were in charge of Harry's treatment, I would force him to live in a group home.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
Not at all							very much	

24. If I were a landlord, I probably would rent an apartment to Harry.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
Not likely							very likely	

25. How much concern would you feel for Harry?

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
Not at all							very much	

Attitudes towards Seeking Professional Psychological Help Scale (Fischer & Farina, 1995)

Read each statement carefully and indicate your degree of agreement using the scale below.

	Strongly disagree	Disagree	Agree	Strongly agree
1. If I believed I was having a mental breakdown, my first inclination would be to get professional attention.	0	1	2	3
2. The idea of talking about problems with a psychologist strikes me as a poor way to get rid of emotional conflicts.	0	1	2	3
3. If I were experiencing a serious emotional crisis at this point in my life, I would be confident that I could find relief in psychotherapy.	0	1	2	3
4. There is something admirable in the attitude of a person who is willing to cope with his or her conflicts and fears without resorting to professional help.	0	1	2	3
5. I would want to get psychological help if I were worried or upset for a long period of time.	0	1	2	3
6. I might want to have psychological counselling in the future.	0	1	2	3
7. A person with an emotional problem is not likely to solve it alone; he or she is likely to solve it with professional help.	0	1	2	3
8. Considering the time and expense involved in psychotherapy, it would have doubtful value for a person like me.	0	1	2	3
9. A person should work out his or her own problems; getting psychological counselling would be a last resort.	0	1	2	3
10. Personal and emotional troubles, like many things, tend to work out by themselves.	0	1	2	3

## Educating Others, Secrecy and Distancing Measure

### How much do you agree or disagree with the following statements?

	Strongly disagree	Disagree	Agree	Strongly agree
1. After you entered psychiatric treatment, you found yourself educating others about what it means to be a psychiatric patient.	0	1	2	3
2. You would participate in an organized effort to teach the public more about psychiatric treatment and the problem of people who seek the help of psychiatrists.	0	1	2	3
3. If you thought a friend was uncomfortable with you because you had been in psychiatric treatment, you would take it upon yourself to educate him or her about your treatment.	0	1	2	3
4. If you had a close relative who had been treated for a serious mental illness, you would advise him or her not to tell anyone about it.	0	1	2	3
5. If you were in treatment for a serious mental illness you would worry about certain people finding out about your treatment.	0	1	2	3
6. If you have ever been treated for a serious mental illness, the best thing to do is to keep it a secret.	0	1	2	3
7. There is no reason for a person to hide the fact that he or she was a mental patient at one time.	0	1	2	3
8. In view of society's negative attitudes toward people with serious mental illnesses, you would advise people with serious mental illnesses to keep it a secret.	0	1	2	3

Please indicate by putting a tick in the circle that corresponds with your answer.

### The Mental Health Locus of Control Scale

1. Psychology is for people who can't make it alone and need someone stronger than themselves to lean on.

—————  —————  —————  —————

**Strongly agree**      **Agree**      **Neither**      **Disagree**      **strongly disagree**

2. To recover from a serious mental problem, you must be willing to temporarily surrender all responsibility to an experienced professional.

—————  —————  —————  —————

**Strongly agree**      **Agree**      **Neither**      **Disagree**      **strongly disagree**

3. People with psychological problems should play a large part in planning their own treatment.

—————  —————  —————  —————

**Strongly agree**      **Agree**      **Neither**      **Disagree**      **strongly disagree**

4. Someone receiving psychiatric help should not make any important decisions without seeking advice

—————  —————  —————  —————

**Strongly agree**      **Agree**      **Neither**      **Disagree**      **strongly disagree**

5. When a psychiatric patient is trying out new behaviours a professional should decide which behaviours s/he should try first.

—————  —————  —————  —————

**Strongly agree**      **Agree**      **Neither**      **Disagree**      **strongly disagree**

6. The decision as to when to end psychology work should be taken by the patient rather than the therapist.



7. The lives of people with psychological problems are so complicated that it is almost impossible for them to figure out what they should do to make things better.



8. If Psychology is like building a house, a good therapist should not only give you the tools but should design the house for you.



9. Psychologists should tell their patients how to lead a healthy life instead of waiting to see if they find out for themselves.



10. Patients should try hard to accept their therapist's opinion as to what is right and wrong.



11. When an individual goes to a therapist for help that individual should expect to take most of the responsibility for getting better.



12. In psychology what the therapist thinks is less important than what the client thinks.



13. Most patients leaving a psychiatric hospital should be strictly supervised for some period of time.



14. The goals of psychology should be set by the client rather than the therapist.



15. In group therapy the individuals who benefit the most are almost always those who pay the most attention to group leaders.



16. The mentally ill should not be encouraged to have others take care of their everyday needs



17. If a psychiatric patient feels sure he/she is well enough to stop taking medication that is what he/she should do.



18. The aim of anyone who gets into psychology is to seek the advice of an expert and to act on it.



19. As a general rule psychiatrists should feel o.k. about making decisions on behalf of their patients.



20. A good psychologist expects clients to decide for themselves what they should do.



21. Going to a professional to discuss your problems is better than talking to friends because the advice of a professional is more valuable.



22. When experiencing psychological problems the person least likely to come up with solutions is oneself.



Please indicate by putting a tick in the circle that corresponds with your answer.

### The Mental Health Locus of Origin Scale

1. Eventually medical science will discover a cure for psychosis.



**Strongly agree**      **Agree**      **Neither**      **Disagree**      **strongly disagree**

2. The cause of most psychological problems can be found in the brain.



**Strongly agree**      **Agree**      **Neither**      **Disagree**      **strongly disagree**

3. If the children of schizophrenics were raised by normal parents they would probably grow up to be healthy.



**Strongly agree**      **Agree**      **Neither**      **Disagree**      **strongly disagree**

4. Mental illness is usually caused by some disease of the nervous system.



**Strongly agree**      **Agree**      **Neither**      **Disagree**      **strongly disagree**

5. Some people are born mentally unstable and are almost certain to spend some part of their lives in a mental hospital.



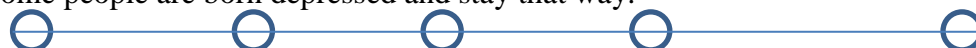
**Strongly agree**      **Agree**      **Neither**      **Disagree**      **strongly disagree**

6. Most people suffering from mental illness were born with some kind of psychological deficit.



**Strongly agree**      **Agree**      **Neither**      **Disagree**      **strongly disagree**

7. Some people are born depressed and stay that way.



**Strongly agree**      **Agree**      **Neither**      **Disagree**      **strongly disagree**



8. Everybody's system has a breaking point and those of mental patients are probably weaker.



9. The mental illness of some people is caused by the separation or divorce of their parents during childhood.



10. Being hot-blooded is the cause of mental illness in some people.



11. More money should be spent on discovering healthy methods of child rearing than determining the biological basis of mental illness.



12. Some people are born with the kind of nervous system that makes it easy for them to become emotionally disturbed.



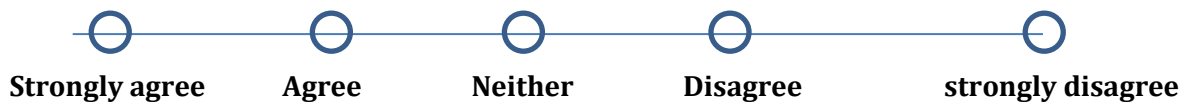
13. Your choice of friends can have a lot to do with your becoming mentally ill.



14. Although they usually aren't aware of it, many people become mentally ill to avoid the difficult problems of everyday life.



15. Some people are born with slightly greater capacity than others to commit suicide later in life.



16. Many normal people would become mentally ill if they had to live in very stressful situations.



17. Many health professionals probably underestimate the extent to which brain damage is responsible for mental illness.



18. When a group of people are forced to live under extremely stressful conditions the ones who crack under the strain are likely to be the ones who inherited a psychologically weak disposition.



19. The kind of nervous system you are born with has little to do with whether you become psychotic.



20. The cause of many psychological problems is bad nerves.



Group Identification (adapted from Hornsey, M., & Hogg, M.A. 2000)

Please circle

	Strongly disagree						Strongly agree
1. I feel British	1	2	3	4	5	6	7
2. I feel strong ties with other British people	1	2	3	4	5	6	7
3. Concerning my opinions and my values, I am like other British people.	1	2	3	4	5	6	7
4. I am happy to be British	1	2	3	4	5	6	7
5. I perceive myself as being similar to other British people	1	2	3	4	5	6	7

## The Supernatural Attitude Questionnaire

### *Instructions*

How much do you agree or disagree with the following statements, please circle.

	Strongly disagree						Strongly agree
1. I believe in god	1	2	3	4	5	6	7
2. I believe in higher power	1	2	3	4	5	6	7
3. I Believe in sorcery/witchcraft	1	2	3	4	5	6	7
4. I believe in Ghosts/evil spirit	1	2	3	4	5	6	7
5. I believe in spirit intrusion/ jinn	1	2	3	4	5	6	7
6. Sorcery/witchcraft can cause mental illness in a person	1	2	3	4	5	6	7
7. Ghosts/evil spirit can cause mental illness in a person?	1	2	3	4	5	6	7
8. Spirit intrusion/ jinn can cause mental illness in a person	1	2	3	4	5	6	7

9. Mental illness can be caused by Divine wrath	1	2	3	4	5	6	7
10. Mental illness can be caused by adverse planetary/astrological influences	1	2	3	4	5	6	7
11. Mental illness can be caused due to the effect of dissatisfied or evil spirits	1	2	3	4	5	6	7
12. Mental health can be due to retribution of a bad deed in a previous life	1	2	3	4	5	6	7
13. Are a person's behaviour or abnormal experiences due to sorcery/witchcraft	1	2	3	4	5	6	7
14. Are a person's behaviour or abnormal experiences due to ghosts/evil spirits	1	2	3	4	5	6	7
15. Are a person's behaviour or abnormal experiences due to spirit intrusion/Jinn	1	2	3	4	5	6	7
16. Are a person's behaviour or abnormal experiences due to divine wrath	1	2	3	4	5	6	7
17. Are a person's behaviour or abnormal experiences due Planetary/astrological influences	1	2	3	4	5	6	7
18. Are a person's behaviour or abnormal experiences due evil spirits	1	2	3	4	5	6	7
19. A person's behaviour can be changed for the better by	1	2	3	4	5	6	7

religious rituals/magico-religious rituals							
20. I believe in and/or talk about sorcery/witchcraft	1	2	3	4	5	6	7
21. I believe in and/or talk about ghosts/evil spirits	1	2	3	4	5	6	7
22. I believe in and/or talk about spirit intrusion/jinn	1	2	3	4	5	6	7
23. I believe in and/or talk about divine wrath	1	2	3	4	5	6	7
24. I believe in and/or talk about planetary/astrological influences	1	2	3	4	5	6	7
25. I believe in and/or talk about evil spirits	1	2	3	4	5	6	7
26. People in my locality and community generally believe in sorcery/witchcraft and such influences	1	2	3	4	5	6	7
27. I belong to a specific or special spiritual or religious sect?	1	2	3	4	5	6	7
Yes (if yes which one) please write below							

**How much would you respond in each of the following ways to Psychotic people?**

	Not at all						Very much so
1. talk to them	1	2	3	4	5	6	7
2. avoid them	1	2	3	4	5	6	7
3. oppose them	1	2	3	4	5	6	7
4. spend time with them	1	2	3	4	5	6	7
5. have nothing to do with them	1	2	3	4	5	6	7
6. confront them	1	2	3	4	5	6	7
7. find out more about them	1	2	3	4	5	6	7
8. keep them at a distance	1	2	3	4	5	6	7
9. argue with them	1	2	3	4	5	6	7



## Appendix 11: Teacher letter

The University  
of Manchester

MANCHESTER  
1824

Division of Clinical  
Psychology  
2nd Floor Zochonis Building  
Brunswick Street,  
Manchester  
M13 9PL

Dear Sir/Madam,

We are writing to you in regards to a research study we are hoping to conduct starting in May 2015 exploring cultural differences in beliefs about and attitudes towards Psychosis. We are Clinical Psychology doctoral students who are looking to do the research and we have been working with schools and colleges in the local area to recruit students between 16-21 for the research and were hoping your school/college would also like to participate.

The researchers are hoping to carry out 2 studies which are looking at different aspects; however we only need to administer the questionnaires once to each participant. We are also happy to be involved in any kind of seminar or presentations around Clinical Psychology for students, something previous schools and colleges have been interested in and have asked us to do in return for being kind enough to do our research in your college. If you would like more information please do not hesitate to contact us on the following email addresses:

[Aisha.mirza@manchester.ac.uk](mailto:Aisha.mirza@manchester.ac.uk)

[Sehar.Ahmed@postgrad.manchester.ac.uk](mailto:Sehar.Ahmed@postgrad.manchester.ac.uk)

The study has been approved by the University of Manchester research committee and is supervised by

Professor Anthony Morrison, Dr Michele Birtel and Dr Melissa Pyle.

Yours Sincerely

Aisha Mirza

Trainee Clinical Psychologist

Supervised by

Professor Anthony Morrison

Sehar Ahmed

Trainee Clinical Psychologist

Dr Michele Birtel

Dr Melissa Pyle



## Appendix 12 Empirical Paper Journal submission author guidelines

# PSYCHIATRY RESEARCH

### AUTHOR INFORMATION PAGE

#### TABLE OF CONTENTS

●	<b>Description</b>	<b>p.1</b>
●	<b>Audience</b>	<b>p.1</b>
●	<b>Impact Factor</b>	<b>p.1</b>
●	<b>Abstracting and Indexing</b>	<b>p.2</b>
●	<b>Editorial Board</b>	<b>p.2</b>
●	<b>Guide for Authors</b>	<b>p.4</b>



ISSN: 0165-1781

#### DESCRIPTION

The journal provides very rapid publication of short but complete research reports in the field of **psychiatry**. The scope of the journal encompasses: (1) Biochemical, physiological, genetic, psychological, and social **determinants of human behavior**;

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3) Evaluation of somatic and non-somatic **psychiatric treatments**.

In addition, reports of clinically related basic studies in the fields of neuropharmacology, neurochemistry, neuroendocrinology, electrophysiology, psychology, genetics, and brain imaging are published. Significant methodological advances

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## GUIDE FOR AUTHORS

---

Rapid publication is a priority; hence, authors are requested to pay close attention to the following instructions for the submission of manuscripts to the journal *Psychiatry Research*.

### **Preparation of manuscripts**

**Title page.** The Title page should include the author byline, with names of authors on the same line(s). Superscript letters (a, b, c), not numerals, should be used to key institutional affiliation (if all authors are in the same department, the superscript letter should be omitted); an asterisk should be entered to designate the corresponding author. Underneath the byline, institutional affiliations should be listed (department, institution, city, state or province (if applicable) and country. Funding information should not be included on the title page but should instead be given following the Discussion section. In an asterisked Corresponding Author footnote at the bottom of the title page, telephone/fax numbers and e-mail address of the corresponding author should be provided; e-mail addresses, if desired, may also be provided for the co-authors (or co-corresponding author, if applicable).

**Abstract.** The Abstract should be 150-200 words for full-length articles and 100 words for short communications (formally known as Brief Communications), summarizing the aims of the study, the methods used, the results and the major conclusions. Do not include a summary at the end of the article. Note that *Psychiatry Research: Neuroimaging* does not use the structured abstract style; do not include bold-faced headings within the abstract. The Abstract should be a single paragraph. Do not include detailed statistics or p-values in the abstract; simply say "significant" or "non-significant."

The abstract should be followed by up to seven key words which accord with the indexing conventions of Index Medicus. Note that the keywords should not duplicate words used in the title of the article, which will be automatically indexed.

**Text.** Although exceptions will be considered, manuscripts should not exceed 5000 words, and shorter manuscripts (e.g., 3000 words) are preferred. Each article should contain the following major headings: Introduction (preceded by arabic number 1.), Methods (preceded by number 2.), Results (preceded by number 3.), Discussion (preceded by number 4.), Acknowledgment (optional section following the discussion, which should not be preceded by a numeral), and References (should not be preceded by a numeral).

Subheadings should follow the numbering system used in the major heading; for example, the subheading "Subjects" within the Methods section should be flush left on a separate line and designated 2.1., the subheading "Procedures" should be designated 2.2., etc.

Lower level headings, if required, should also be numbered (e.g., "2.1.1. Patients." as a lower order heading under "2.1. Subjects."). Only the first letter of the first word of each heading should be capitalized.

The use of abbreviations within the text should be minimized, and each abbreviation, when introduced, must be defined and used consistently thereafter. Systeme International measurements should be used. For products or instruments (do not abbreviate) used in the research reported, provide the name, city and country of the supplier in parentheses. All tables and figures must be referred to in the text.

### **Manuscript categories**

**Research Articles.** Although exceptions will be considered, manuscripts should not exceed 5000 words, and shorter manuscripts (e.g., 3000 words) are preferred. Each article should contain the following major headings: Introduction (preceded by arabic number 1.), Methods (preceded by number 2.), Results (preceded by number 3.), Discussion (preceded by number 4.), Acknowledgment (optional section following the discussion, which should not be preceded by a numeral), and References (should not be preceded by a numeral). Subheadings should follow the numbering system used in the major heading; for example, the subheading "Subjects" within the Methods section should be flush left on a separate line and designated 2.1., the subheading "Procedures" should be designated 2.2., etc. Lower level headings, if required, should also be numbered (e.g., "2.1.1. Patients." as a lower order heading under "2.1. Subjects."). Only the first letter of the first word of each heading should be capitalized.

**Short communications.** Short communications (formally called Brief reports) should not exceed 1500 words, including a 100-word abstract, 3 keywords, text, and references plus 1 table or 1 figure.

**Case reports.** Case reports will only be considered as Correspondence (see following instructions.)

**Correspondence** Correspondence items (formally Letters to the Editor ) should be 750-1000 words or less. It should not include a title page, abstract or key words. Authors' names and affiliations should be listed at the end of the letter, along with the corresponding author's email address. There should be no more than 5 references, and no tables or figures.

### **Manuscript categories**

**Conflict of interest.** All authors are requested to disclose any actual or potential conflict of interest including any financial, personal or other relationships with other people or organizations within three

(3) years of beginning the work submitted that could inappropriately influence, or be perceived to influence, their work. Examples of potential conflicts of interest that should be disclosed include employment, consultancies, stock ownership (except for personal investment purposes equal to the lesser of one percent (1%) or USD 5000), honoraria, paid expert testimony, patent applications, registrations, and grants. If there are no conflicts of interest, authors should state that there are none.

**Abbreviations.** Define abbreviations at their first occurrence in the article. Abbreviations should be defined when they first occur in the abstract, in the text, and also in tables and figure legends. Once an abbreviation has been introduced in the main body of the text, it should be used throughout.

**Statistical reporting.** Statistical reporting should be complete, including at a minimum name of statistical test, test value, degrees of freedom where appropriate, and *p*-value. Italic font should be used for *n* (sample size) and statistical terms, e.g., *t*, *r*, *F*, *U*, *p*.

### **Submission of manuscripts**

Managing Editor for alternative instructions. By accessing the online submission at

[https://www.evise.com/evise/faces/pages/navigation/NavController.jspx?JRNL\\_ACR=PSY](https://www.evise.com/evise/faces/pages/navigation/NavController.jspx?JRNL_ACR=PSY) you will be guided stepwise through the creation and uploading of the various files. Authors will be requested to direct the manuscripts to the most appropriate Section/Category of research to assist in editor assignment.

**NOTE TO AUTHORS:** Psychiatry Research has a separate section to which neuroimaging-related articles should be submitted. All articles about MRI, PET, fMRI, SPECT, MEG and topographic EEG should be submitted to the Neuroimaging Section: <http://ees.elsevier.com/psyn>

Authors may email queries concerning the submission process or journal procedures to the Managing Editor of Psychiatry Research: Sherry Buchsbaum ([sherry.buchsbaum@gmail.com](mailto:sherry.buchsbaum@gmail.com)).

## **BEFORE YOU BEGIN**

### **Ethics in publishing**

Please see our information pages on [Ethics in publishing](#) and [Ethical guidelines for journal publication](#).

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If the work involves the use of human subjects, the author should ensure that the work described has been carried out in accordance with [The Code of Ethics of the World Medical Association](#) (Declaration of Helsinki) for experiments involving humans; [Uniform Requirements for manuscripts submitted to Biomedical journals](#). Authors should include a statement in the manuscript that informed consent was obtained for experimentation with human subjects. The privacy rights of human subjects must always be observed.

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should clearly indicate in the manuscript that such guidelines have been followed.

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#### TABLE OF CONTENTS

**Description**  
**Audience**  
**Impact Factor**  
**Abstracting and Indexing**  
**Editorial Board**  
**Guide for Authors**



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## **Appendix 14: Highlights for Clinical Psychology Review Journal**

Highlights for Clinical Psychology Review Journal submission

### Highlights

- ▶ This is the first synthesis available about causal explanations for psychosis specifically in South Asian populations
- ▶ 17 studies looking at causal explanations for psychosis in South Asian patient, relative and general populations were explored
- ▶ The majority of the studies found similar results with South Asians reporting more supernatural and religious beliefs as causes for psychosis.

## **Appendix 15: Psychosis definition**

Psychosis is a mental health problem that causes people to perceive or interpret things differently from those around them. Someone who develops Psychosis will have their own unique set of symptoms and experiences according to their particular circumstances. Some common experiences associated with Psychosis are hallucinations, delusions, confusion and intrusive thoughts.

-A delusion is a false belief which is firmly sustained and based on incorrect inference about reality. This belief is held despite evidence to the contrary and is not accounted for by the person's culture or religion.

-A hallucination can be described as a sensory perception which is experienced despite there being no external stimulus. Hallucinations can occur with any sense and thus be visual, auditory, olfactory, gustatory or tactile.

-Intrusive thoughts are unwelcome involuntary thoughts, images, or unpleasant ideas that may become obsessions, are upsetting or distressing, and can be difficult to manage or eliminate

In some of the questionnaires, the term mental health has been used.

When you are answering these questions, we would like you to think specifically about Psychosis.

Thank you.

### Appendix 16- Quality Assessment Tool

Author	Qualitative				Quantitative				Mixed Methods			Overall MMAT score	Second rater scores (ICC's)
	Sources of data relevant	Analysis relevant	Consideration of findings related to context	Consideration of researcher influence on findings	Relevant sampling strategy	Sample representative	Appropriate measurement used	Response rate 60% or above	Design relevant to answer question?	Integration of qualitative and quantitative	Appropriate consideration given to limitations of integrations?		
Charles et al. (2007)	x	√	√	x	x	√	x	√	√	√	x	25%=low 50%= mod 75%=mod-high 100%=high	
Bhika et al. (2015)	√	√	√	√								100% (high)	100%
McCabe &Priebe (2004)	√	√	√	x	x	√	√	√	√	√	x	75% (Mod-high)	100%
Saravanan et al. (2007b)	√	√	x	x	x	√	x	√	√	x	x	50% (Mod-high)	
Saravanan et al. (2007a)	√	x	√	x	x	√	√	x	√	√	x	50% (Mod)	
Johnson et al. (2012)	√	√	√	x	x	x	√	x	√	x	x	25% (Low)	
Kulhara et al. (2000)	√	√	x	√								75% (Mod-high)	75%
Somasundaram. (2008)	√	√	x	x	x	x	x	√	√	x	x	25% (low)	
Chakarborty et al. (2013)					√	x	x	x				25% (low)	
Srinivasan & Thara. (2001)	√	√	√	x								75% (mod-high)	
Saravanan et al. (2001)	x	√	x	x								25% (low)	
Cinnirella & Loewenthal, (1999)	x	√	x	x								50% (mod)	
Furnham et al.(2008)	x	x	x	√								25% (low)	
Joel et al. (2003)	x	x	x	√								25% (low)	
Tabassum et al. (2000)	x	x	x	√								25% (low)	
Jobanputra & Furnham. (2005)	x	√	x	x								25% (low)	
Zafar et al.(2008)	√	√	x	x								50% (mod)	50%

**Appendix 16: Second-rater scores of papers reviewed**

Author	Qualitative				Quantitative				Mixed Methods			Overall MMAT score
	Sources of data relevant	Analysis relevant	Consideration of findings related to context	Consideration of researcher influence on findings	Relevant sampling strategy	Sample representative	Appropriate measurement used	Response rate 60% or above	Design relevant to answer question?	Integration of qualitative and quantitative	Appropriate consideration given to limitations of integrations?	25%=low 50%= mod 75%=mod-high 100%=high
Bhika et al. (2015)	√	√	√	√								100% (high)
McCabe & Priebe (2004)	√	√	√	√	√	√	√	√	√	√	x	100% (high)
Kulhara et al. (2000)	√	√	x	√								75% (Mod-high)
Jobanputra & Furnham. (2005)	x	√	x	x								25% (low)
Zafar et al.(2008)	√	√	x	x								50% (mod)

