STIGMA AND MENTAL ILLNESS:

ARE THERE CULTURAL DIFFERENCES?

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Abstract

Most of the stigma research to date has been completed in western cultures. Not much is currently known about stigma towards mental illness in non-western cultures. Limited research has also been conducted with young people. Given that adolescence is a critical stage in the development of attitudes and identity formation, it seems an important time to investigate attitudes towards mental illness.

The study investigated whether there were cultural differences in stigmatising attitudes towards people with mental illness, comparing British and Pakistani adolescents living in the UK. Factors shown to influence stigma were also examined. These included labelling of mental illness, familiarity with mental illness and perceived causal attributions.

A quantitative non-experimental cross-sectional design was used. In total 100 adolescents (54 British and 46 Pakistani) completed the survey (online or paper based). Participants were asked to read a vignette describing a person with psychosis and complete a series of questionnaires relating to it.

Results indicated that there were no significant differences in stigma between the two cultural groups. Pakistani adolescents considered that supernatural causes and immoral life style were more likely to cause mental illness. British adolescents were more likely to provide the correct psychiatric diagnosis for the problem described in the vignette. Both groups were found to have similar levels of contact with individuals with mental illness.

Future research is needed to develop a better understanding of how mental illness is constructed and construed in non-western cultures. Additional studies are also required with adolescents. This would allow the development of culturally sensitive services and appropriate anti-stigma campaigns. The application of existing stigma models to non-western cultures and adolescents should be further investigated. The social psychological model

appears to be a useful framework that could be used to aid our understanding of stigma in

both populations.

CHAPTER 1

1. Introduction

1.1 Overview

Stigma associated with mental illness is widespread (Lauber, Nordt, Falcato, & Rossler, 2004). Negative attitudes have been reported to impact on many different areas including education, employment, housing and relationships with family and friends (Corrigan, Edwards, Green, Diwan, & Penn, 2001). Research has also indicated that stigmatising attitudes may also prevent help seeking and increase psychological distress (Link, Struening, Rahav, Phelan, & Nuttbroack, 1997).

Substantial research has been conducted investigating attitudes towards people with mental illness, although limited studies have been conducted in the UK (e.g., Angermeyer & Matschinger, 2003a, 2003b; Angermeyer, Beck, & Matschinger, 2003; Corrigan, Green, Lundin, Kubiak, & Penn, 2001; Lauber et al., 2000; Link, Cullen, Frank, & Woziak, 1987). Various factors have been found to be associated with stigma. These include labelling of mental illness, familiarity with mental illness, and perceived causal attributions. However much of the research to date has been completed in western cultures and as such is potentially biased by western perceptions of psychology and society (Corrigan, 2004).

Western and non-western cultures have been identified as differing on various dimensions including individualism and collectivism (Hofstede, 2001). Culture has also been shown to influence our sense of self (Markus & Kitayama, 1991, 1994, 2010). Within cultures that value autonomy and independence (typically western cultures) the self is represented as an independent, self-contained, autonomous individual. Within cultures that value relatedness and interdependence (typically non-western cultures) the self is seen as being connected to the surrounding social context and relatedness is emphasised (Markus & Kitayama, 1991). These cultural differences influence individuals' thinking, feeling and

behaviour (Markus & Kitayama, 2010). Therefore it is vital that further research is conducted in non-western cultures to help develop a better understanding of stigma. These concepts are explained further in Section 1.4.2.1 of this chapter.

Most of the stigma research has involved adult populations. Limited studies have been conducted with adolescents (Link, Yang, Phelan, & Collins, 2004). This is surprising given that adolescence is a critical stage in the development of attitudes (Adelson, 1975; Kohlberg, 1976) and a period when individuals develop a sense of identity (Erikson, 1968). Thus it seems an important time to investigate attitudes towards mental illness.

Given the gaps in the literature, this thesis will attempt to bring together these areas by exploring whether there are any cultural differences in stigmatising attitudes towards people with mental illness between British and Pakistani adolescents living in the UK. The study will also examine whether there are cultural differences in factors that have been shown to influence stigma.

Within the introductory chapter, the concepts of stigma, culture and adolescence are explained and relevant theories are outlined. Research on the publics' attitudes towards mental illness in western cultures is discussed. Following this, the relationship between culture and stigma is explored and a literature review examining attitudes towards mental illness in non-western cultures is presented. This highlights gaps in the literature. Research examining stigma in adolescents is then reviewed. The chapter concludes by describing the rationale and aims for the current study, followed by the research questions to be answered.

1.2 Stigma

1.2.1 What is mental illness stigma?

Stigma has been identified as a major concern for people with mental illness (Dinos, Stevens, Serfaty, Weich, & King, 2004). Stigma refers to problems of knowledge, attitudes

and behaviours (Thornicroft, Rose, Kassam, & Sartorius, 2007). It is viewed as a social

cognitive process comprising three components: stereotypes, prejudice and discrimination

(Corrigan, Watson, & Ottati, 2003). Stereotypes are known structures that help to categorise

information. They are shared beliefs about personality traits and behaviours of members of a

social group (Hilton & Von Hippel, 1996). Most people have knowledge of a set of

stereotypes; however this does not necessarily mean that they all agree with them (Jussim,

Nelson, Manus, & Soffin, 1995). For example, many people are able to recall stereotypes

about different racial groups but do not agree that the stereotypes are valid. Prejudice is the

endorsement of negative attitudes and stereotypes towards particular social groups (Krueger,

1996) (e.g., "All people with mental illness are violent"). Prejudice leads to discrimination;

the behavioural reaction (Crocker, Major, & Steele, 1998) (e.g., employers are less likely to

hire people with mental illness).

Stigma associated with mental illness affects different life domains of those afflicted

including interpersonal relationships, housing, employment and recovery from mental illness

(Link, Struening, Neese-Todd, Asmussen, & Phelan, 2001). This is because stigma often

causes social exclusion and isolation for those afflicted (Gaebel, Baumann, Witte, & Zaeske,

2002). Stigmatising attitudes may also prevent seeking help and increase psychological

distress (Link et al., 1997). Thus, an important goal of mental health research is to reveal

ways to reduce stigma (Lauber et al., 2004). However, before this can be done it is essential

to understand the factors contributing to stigma (Penn, Kohlmaier & Corrigan, 2000).

Pincus (1996) identified three levels of discrimination felt by people with mental

illness: institutional, individual and internalised. The current study is interested in individual

stigma; the behaviour of individual members of one group intended to have a differential or

harmful effect on members of another group (Pincus, 1996). It is most frequently measured

by the desire for social distance (Link et al., 2004). This is the amount of distance that

individuals of one group would hypothetically place between themselves and individuals of another group in various contact situations (Bogardus, 1925). Applied to mental illness, it is the willingness to engage with people with a mental illness in activities such as babysitting, dating and renting out a room to them (Corrigan, Edwards, et al., 2001). Underlying the measure of social distance is the assumption that behaviours symptomatic of mental illness prompt affective reactions such as rejection, acceptance, and ambivalence from members of the public (Crocker et al., 1998).

Link and Cullen (1983) considered that studies based on social distance items merely measure socially desirable attitudes. Individuals overlook more latent and unfavourable views. Link, Cullen, Struening, Shrout, and Dohrenwend (1989) therefore developed the Devaluation-Discrimination measure. This looks at the extent to which individuals' believe that 'most people' will devalue and discriminate against a person with mental illness. It measures both stigmatising attitudes and behaviours towards mental illness. This is the focus of the current research.

1.2.2 Theories of stigma.

There are two main theoretical frameworks relating to stigma; labelling theories (Link et al., 1987; Scheff, 1966) and attribution theories (Corrigan, 2000; Heider, 1958; Weiner, 1995). Contrasting views exist on the labelling of mental health problems. Labelling of mental health problems refers to how the presenting problem is defined or identified. It is argued from a clinical perspective that labelling provides direction for those afflicted and their relatives by replacing uncertainty and false beliefs with a better understanding of the nature of the problem (Angermeyer & Matschinger, 2003a). As a result people will then know who to ask for help and which measures to take to overcome the problem (Rosenfield, 1997). Sociological role theory (Parsons, 1958) points to another positive effect of labelling. This considers most of everyday activity to be the acting out of socially defined roles, each

with its own social expectations that individuals are required to fulfil. Parsons' (1958) theory

suggests that if an individual's mental health problem is perceived as an illness, the privileges

of the patient role will be granted and the patient will not be held responsible for their illness.

This should result in a more accepting attitude towards those suffering from mental health

problems. By contrast, labelling theory (Scheff, 1966) proposes that psychiatric labelling

leads to negative effects. According to Scheff's (1966) theory, through the process of

labelling negative stereotypes of the mentally ill are often triggered, leading to increased

discrimination. Link et al. (1987) proposed a modified approach to understand the

consequences of labelling and extended Scheff's (1966) theory. They suggested that if an

individual is labelled with a mental illness this can lead to social rejection. Social rejection

triggers responses in the stigmatised individual such as secrecy and withdrawal, which can

produce negative consequences such as feelings of shame, lowered self-esteem and reduced

earning power. This process may induce a state of vulnerability, increasing the likelihood of

repeated episodes of mental illness.

According to attribution theory (Heider, 1958), people begin to understand others by

making personal or situational attributions about their behaviour. This has become an

important framework for explaining the relationship between stigmatising attitudes and

discriminatory behaviour (Weiner, 1995). According to Weiner's (1995) attribution theory,

behaviour is determined by a cognitive emotional process by which people make attributions

about the causes and controllability of a person's behaviour that lead to inferences about

responsibility. These inferences lead to emotional reactions such as anger or pity that affect

the likelihood of helping or punishing behaviours. If the causes of a person's behaviour are

attributed to factors outside the individual's control, they are less likely to be judged

responsible and peoples' emotional reactions and behaviours towards the individual will be

less negative. Alternatively, if the causes of a person's behaviour are attributed to factors

within the individual's control, the individual is likely to be judged responsible, resulting in negative emotions and behaviours towards them.

Corrigan (2000) adapted Weiner's (1995) theory and applied it specifically to the stigmatisation of mental illness. Corrigan (2000) highlighted the relationship between signalling events (person with mental illness), mediating knowledge structures (attributions), emotional/affective responses and behavioural reactions. This is outlined in Figure 1.
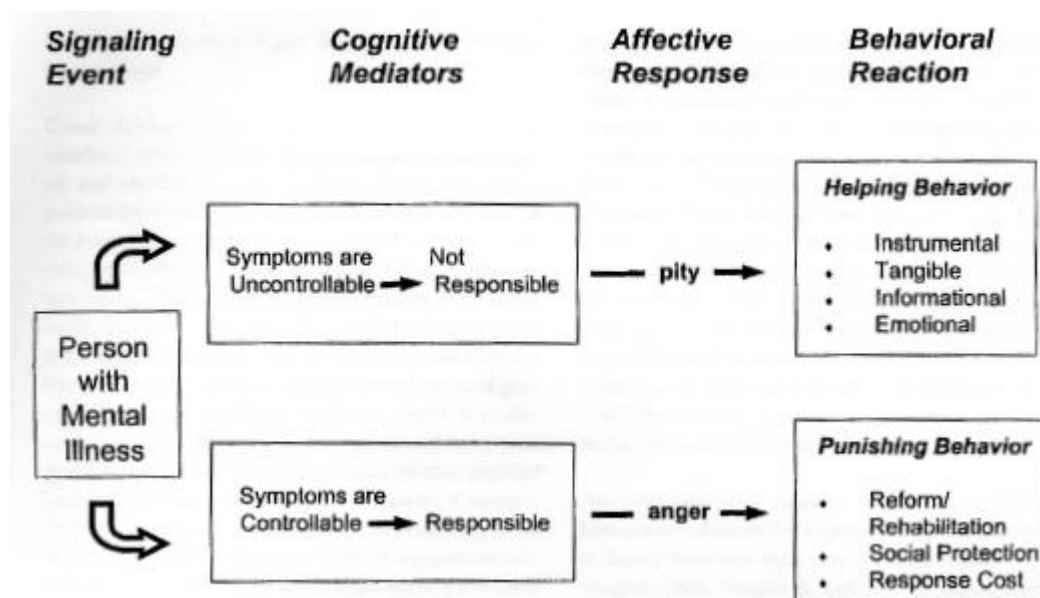
Figure 1. Corrigan's (2000) Attribution Model (adapted from the work of Weiner, 1995).

Corrigan (2000) proposed that people who believe that mental illness is under an individual's control (i.e., they are responsible), are likely to respond in anger towards the individual and act towards them in a punishing manner. In comparison, people who consider that mental illness is due to factors outside the individual's control (i.e., they are not responsible) are likely to respond in pity towards the individual, resulting in helping behaviour. According to Corrigan's (2000) model, people who believe that individuals with mental illness are dangerous are likely to react with fear leading to increased social distance. Although Corrigan's (2000) model outlines the different components of stigma towards

people with mental illness, and explains how attributions of mental illness lead to discriminatory or helping behaviour, limited studies have tested the model (e.g., Angermeyer, Matschinger, et al., 2003; Corrigan, Green et al., 2001). Additionally, the model implies a linear relationship between the components and does not consider that other factors may influence the relationship between the separate components (e.g., familiarity with mental illness).

Social identity theory (Tajfel & Turner, 1986) may also help explain intergroup discrimination such as that towards individuals with mental illness. The theory highlights how our sense of identity is closely bound up with our various group memberships, and that we assess our own group's worth by comparing it with other groups. According to Tajfel and Turner (1986), people prefer to have a positive identity rather than a negative one. Since part of our identity is defined in terms of group membership, it follows that there will be a preference to view those in-groups (including oneself) positively and out-groups (different to oneself) negatively. The outcome of these intergroup comparisons is crucial because it contributes to our self-esteem. Therefore when considering the issue of stigma, it is likely that people with mental illness (out-group) are perceived less favourably compared to people without mental illness (in-group) and are therefore more likely to experience discrimination from others.

A detailed social psychological model (Angermeyer & Matschinger, 2003a, 2003b; Angermeyer, Matschinger, & Corrigan, 2003; Corrigan, Edwards, et al., 2001) based on both attribution and labelling theories has also been developed to describe the different components of stigma. This is one of the most widely used models in stigma research conducted in western cultures. It suggests that people hold stigmatising attitudes because of their past experiences and knowledge, and that they react emotionally in response to these attitudes. The emotional reaction leads to a behavioural response (Corrigan et al., 2000). The

causal pathway model takes into account different experiences (e.g., labelling of mental illness, familiarity with mental illness and demographic variables) and examines how these impact on perceptions of mental illness (e.g., dangerousness, dependency, causal attributions and prognosis). These perceptions are considered to influence affect (e.g., fear, anger, lack of understanding, pity and desire to help) if confronted with a person with mental illness. The emotional reactions of people finally impact on social distance. This is outlined in Figure 2.
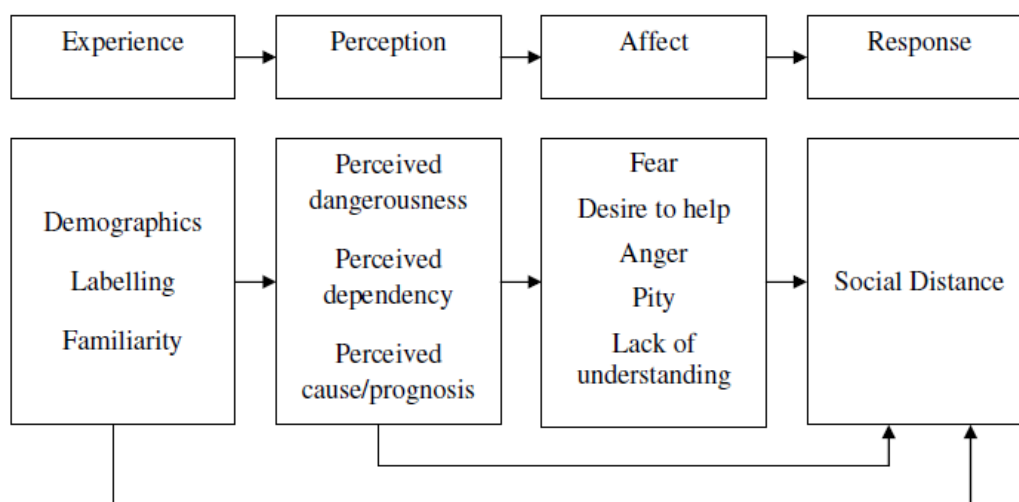
Figure 2. Causal Pathway for Social Distancing According to the Social Psychological Model (Angermeyer & Matschinger, 2003a, 2003b; Angermeyer, Matschinger, et al., 2003; Corrigan, Edwards, et al., 2001).

The model has a number of 'paths' from experience to response. 'Perception' and 'Affect' are likely to make up what we understand to be attributions within stigma, whilst 'Response' is discrimination (Emmerton, 2010). According to the model, there are a number of different factors (experience) aside from attributions that are thought to directly impact on social distance. These include labelling of mental illness, familiarity with mental illness and demographic variables (e.g., age and gender). Numerous studies have been conducted testing the social psychological model in western cultures, using path analysis to examine the

relationship between the different components. A review of the main studies is outlined in Section 1.2.3. However, no studies have tested application of the model in non-western cultures.

1.2.3 Stigma research.

Numerous researchers have investigated how different factors influence peoples' desire for social distance from people with mental illness (e.g., Angermeyer & Matschinger, 2003a, 2003b; Angermeyer, Beck, et al., 2003; Corrigan, Green, et al., 2001; Lauber et al., 2004; Link et al., 1987). One study that has been particularly influential in the field of stigma research is a large scale representative study ($N = 5025$) conducted in Germany. Fully structured interviews were conducted with adults who were presented with a vignette containing a diagnostically unlabelled psychiatric case history. The vignette described a case of schizophrenia or major depressive disorder. Both vignettes fulfilled the DSM-III-R criteria for the respective disorder. Participants were asked to complete measures relating to factors of labelling, familiarity with mental illness and causal attributions. Personal attributes of the individual described in the vignette were also generated, which intended to cover two important components of the stereotype of mental illness: dangerousness and dependency. Emotional reactions (e.g., fear, pity and anger) towards the individual were also assessed. The impact of these factors on desire for social distance was measured. This research has led to many publications (Angermeyer & Matschinger, 2003a, 2003b, 2005; Angermeyer, Beck, et al., 2003; Angermeyer, Matschinger, et al., 2003). The next three sections highlight the different factors identified by research (predominantly based on the social psychological model) to influence desire for social distance from people with mental illness. The factors are labelling, familiarity and perceived causal attributions. This is followed by a discussion of limitations of the studies.

1.2.3.1 Labelling.

Angermeyer and Matschinger (2003a) found that labelling the vignette as mental illness was found to be positively correlated with the belief that the individual described was dangerous. This was shown to lead directly, as well as indirectly through an increase of fear, to a preference for greater social distance. Additionally, perceived dangerousness was found to result in an increase in social distance through an inverse relationship with pity. In contrast, labelling was found to have no effect on these attitudinal responses with major depression. This is further supported by Angermeyer and Matschinger (2003b), who examined the similarities and differences of the publics' conceptions of schizophrenia and major depression. They reported that in the case of schizophrenia, labelling as mental illness primarily affects respondents' emotional reactions negatively, whereas in the case of major depression a positive effect prevails. People with schizophrenia are, by far, more frequently considered dangerous and unpredictable. They evoke more fear, whilst people with major depression evoke more pro-social reactions. The study highlights the importance of investigating stigma processes for different mental illnesses.

Link et al. (1987) conducted a postal questionnaire study using a vignette experiment which manipulated labelling status (former mental hospital patient versus hospitalised for a back problem). They found that when the person described in the vignette was not labelled 'a former mental patient', beliefs about the dangerousness of people with mental illness were irrelevant and social distance was reduced. In contrast, when the vignette was labelled as 'a mental patient' respondents who perceived patients as dangerous showed higher levels of social distance. Prior to the study, the authors conducted a pilot study to examine whether participants were able to guess the nature of the experiment, due to the ordering of questionnaires. Results showed that only two individuals indicated that they were able to guess the hypothesis. Participants for the study were recruited via a random sampling

technique. The measures used within the study were shown to have good reliability (Social Distance Scale = .92 and Perceived Dangerousness Scale = .85) and multiple regression analyses were conducted, which were considered to be appropriate.

Consistent with the findings of Link et al. (1987), Lauber et al. (2004) reported that participants in Switzerland who correctly recognised the person described in the vignette as having a mental illness desired greater social distance from the individual. Strengths of the study include its large representative sample and the use of telephone interviews in an attempt to overcome social desirability. The study also examined the influence of a range of demographic, psychological and sociological variables on social distance (Lauber et al., 2004). However, participants were forced to choose between 'illness' and 'crisis' when presented with the vignette, rather than being asked if they considered that anything was wrong with the person, thus limiting their responses and suggesting a problem. Additionally, the authors did not attempt to explain the processes involved in stigma formation, and how labelling leads to an increase in social distance.

The studies conducted by Angermeyer and Matschinger (2003a, 2003b) and Link et al. (1987) fit the social psychological model (Figure 1) but different reactions and responses were found. In the studies conducted by Angermeyer and Matschinger (2003a) and Link et al. (1987) labelling the person in the vignette as having a mental illness (experience) led to beliefs that the person was dangerous (perception). This led to increased fear of the person with mental illness (affect), which resulted in a desire for greater social distance (response). This was also found by Angermeyer and Matschinger (2003b) for schizophrenia. However for depression, labelling the person in the vignette as having a mental illness (experience) led to beliefs that the person was needy or dependent (perception). This led to a desire to help the person with mental illness (affect), which resulted in less desire for social distance (response).

The studies show that labelling influences desire for social distance from people with mental illness in western cultures.

1.2.3.2 Familiarity.

Corrigan, Green, et al. (2001) tested the social psychological model with a sample of community college students. Participants were asked to complete measures relating to each of these factors. Findings were shown to support the model. As expected, the more familiar a person was with mental illness (experience), the less dangerous they believed individuals' with mental illness to be (perceptions). Weaker perceptions of dangerousness were seen to correspond with less fear of individuals with mental illness (affect), which in turn was associated with less social distance (response). Limitations of the study include that a small student sample was used. This limits the ability to generalise findings to adult and non-western populations. Additionally, the study investigated attitudes towards people with mental illness in general. Therefore it is unclear as to whether the model applies in a similar manner with different disorders.

Link and Cullen (1986) also examined the relationship between familiarity and perceptions of dangerousness. Consistent with the findings of Corrigan, Green, et al. (2001), they found that increased contact with people with mental illness was associated with reduced fear among participants. However, the behavioural reactions towards people with mental illness were not examined in the study.

Angermeyer, Matschinger, et al. (2003) replicated the study conducted by Corrigan, Green, et al. (2001) using data collected from the representative survey conducted in Germany. Results also showed a relationship in the predicted direction between familiarity and the three attitudinal domains of perceived dangerousness, fear and social distance, for

both schizophrenia and depression, providing further support for the social psychological model.

The findings indicate that familiarity with mental illness influences desire for social distance from people with mental illness in western cultures. The more familiar individuals' are with mental illness, the less desire for social distance.

1.2.3.3 Causal attributions.

Angermeyer and Matschinger (2005) investigated participants' attributions of the cause of schizophrenia described in a vignette. The impact on social distance was also assessed. Results were compared with similar data collected in 1990 in what was then the Federal Republic of Germany, using an identical methodology. It was hypothesised that individuals who indicated greater endorsement of biological causes for schizophrenia would desire lower levels of social distance, in line with attribution theories (e.g., Corrigan, 2000; Weiner, 1995). However, no such relationship was observed in the study. An increase was seen in the endorsement of biological causes compared to the data collected in 1990. Findings demonstrated that both biological attributions and social distance were positively related with each other. Detailed analyses showed that the more participants' endorsed biological factors (e.g., brain disease) as a cause, the more unpredictable, dangerous and lacking in self control they perceived individuals' with schizophrenia to be. This in turn was associated with a higher degree of fear, resulting in an increased desire for social distance (Dietrich, Matschinger, & Angermeyer, 2006). Results reported by Angermeyer, Beck, et al. (2003) mirrored these findings. This is not surprising given that both studies used data from the same study. Similar findings were also reported by Read and Law (1999) and Read and Harre (2001) in their studies with undergraduates in New Zealand.

These findings can be explained by the social psychological model; attributing biological causes to mental illness/schizophrenia (experience) led participants to infer that the person was unpredictable and dangerous (perception). This evoked fear of the person with mental illness (affect), which resulted in a greater desire for social distance (response).

The findings suggest that perceived causal attributions influence desire for social distance from people with mental illness in western cultures. The endorsement of biological factors as perceived causes of mental illness has been shown to result in an increased desire for social distance. These findings do not support Weiner's (1995) or Corrigan's (2000) attribution theories, and highlight the importance of understanding the process of stigma formation.

1.2.4 Summary of the studies.

The factors of labelling, familiarity with mental illness and causal attributions have been shown to influence social distance in western cultures. Findings indicate that labelling problems as mental illness (e.g., schizophrenia), being less familiar with mental illness and attributing biological causes (e.g., brain disease) to mental illness, were associated with an increased desire for social distance. These factors were shown to lead to perceptions of dangerousness and unpredictability, resulting in increased fear of people with mental illness. In contrast, recognising the problem depicted in the vignette as depression evoked perceptions of dependency resulting in less desire for social distance. All findings provide support for the social psychological model outlined in Section 1.2.2.

1.2.5 Limitations of the studies.

Limitations of the representative study conducted in Germany (Angermeyer & Matschinger, 2003a, 2003b, 2005; Angermeyer, Beck, et al., 2003; Angermeyer,

Matschinger, et al., 2003) should be highlighted. Some of the limitations can also be generalised to other research conducted in the field. The first limitation is the use of vignette methodology. Although vignettes provide a vivid description of an individual with a mental illness, they cannot represent real life. Thus the behaviour described in the vignette may have had less salience for participants, which may have compromised the ecological validity of the findings (Angermeyer, Matschinger, et al., 2003). Secondly, the study only investigated attitudes to two separate disorders and the results cannot be generalised to all mental illness. It is likely that there are differences between various disorders (as shown with the labelling of depression). Lastly, as with any attitude study, it remains an open question as to what extent the behavioural intentions, measured by the desire for social distance, translates into the actual behaviour of individuals (Angermeyer & Matschinger, 2003b). However the results of a meta-analysis conducted by Kraus (1995) showed that there was a substantial association between attitudes and behaviour.

1.2.6 Stigma in the UK.

Since March 1993 the Department of Health (2003) has conducted a survey of attitudes towards mental illness in Great Britain. This aimed to monitor attitudes and track changes in attitudes over time. Between 2009 and 2010 there were several changes. Specifically it was found that there was greater tolerance towards mental illness and opinions had moved in favour of integrating people with mental illness into the community. Although the survey compares attitudes by age, gender and social grades, it does not look at cultural differences.

Crisp, Gelder, Rix, Meltzer, and Rowlands (2000) surveyed adult public opinion in the United Kingdom regarding common mental disorders (e.g., severe depression, panic attacks, schizophrenia, dementia, eating disorders, alcoholism and drug addiction). Results

showed that schizophrenia, alcoholism and drug addiction elicited the most negative

opinions. Respondents commonly perceived these individuals as unpredictable and

dangerous. The authors concluded that knowledge and familiarity of mental illness were

reasonable and that opinions were not based on lack of knowledge. However, the impact of

these opinions and perceptions on the public's behaviour were not explored. Although

random selection was used to identify participants, the sample did not contain sufficient

respondents from different ethnic minority groups to allow separate analyses of their

opinions.

1.3 Stigma Summary

Substantial research has been conducted investigating how different factors influence

peoples' desire for social distance from individuals with mental illness (e.g. Angermeyer &

Matschinger, 2003a, 2003b; Angermeyer, Beck, et al., 2003; Corrigan, Green, et al., 2001;

Lauber et al., 2004; Link et al., 1987). Factors shown to be particularly influential are

labelling of mental illness, familiarity with mental illness and perceived causal attributions.

However, limited research has been conducted in the UK. Much of the stigma research to

date has been completed on western samples and as such is potentially biased by western

perceptions of psychology and society (Corrigan, 2004). Gaining a more complete

understanding of stigma requires broadening research into the international arena. Not much

is currently known about stigma towards mental illness in different cultures (Arrindell, 2003).

Additionally, most of the research has involved adult populations (Link et al., 2004). Thus

there are also gaps in our understanding of stigma, particularly in young people (Jorm &

Wright, 2008). Therefore this study will explore stigma in relation to both culture and

adolescents. Both of these aspects have important clinical implications including developing

a better understanding of the construct of stigma, understanding how mental illness is

construed in different cultures and in adolescents and aiding the development of appropriate anti-stigma campaigns.

1.4 Culture

1.4.1 What is culture?

There are numerous definitions of culture (Marsella & Yamada, 2007). In this study, culture is defined as "shared learned behaviour which is transmitted from one generation to another for purposes of individual and societal growth, adjustment, and adaptation: culture is represented externally as artefacts, roles, and institutions, and it is represented internally as values, beliefs, attitudes, epistemology, consciousness, and biological functioning" (Marsella, 1988, p.8-9). Hofstede (1991, 2001) suggests that the ways individuals think, feel and act in response to relevant issues are structured. The sources of such so called "mental programmes" lie within the social environments (e.g., family, school, work, community etc), in which individuals grow up and acquire life experiences. Such programmes (which are also termed 'culture') are considered to have important consequences for the functioning of societies, groups within these societies, and also individual group members. Culture is not considered a stable set of beliefs or values that reside inside people. Instead culture is located in the world, in patterns of ideas, practices, institutions products and artefacts (Adams & Markus, 2004; Shweder, 2003). Culture is not separate from the individual; it is a product of human activity (Markus & Kitayama, 2010).

1.4.2 Culture theories.

1.4.2.1 Individualism versus collectivism.

Arrindell (2003) highlights how cross-cultural studies usually lack a theory of a key variable, culture itself. This is evident in the stigma research outlined in Section 1.6.2. Within

cross-cultural research the dimension of individualism and collectivism is the most popular concept studied (Green, Deschamps, & Paez, 2005). This dimension is important as it has helped unpack 'culture' (Arrindell, 2003). Hofstede (2001) has identified that cultures differ on various dimensions including individualism and collectivism. This is the degree to which individuals are supposed to look after themselves or to remain integrated into groups, usually around the family. Positioning oneself between these poles is a very basic problem all societies face (Hofstede, 2001). Typically, individualistic traits are used to characterise people from western cultures and collectivistic traits are used to describe people from non-western cultures (Green et al., 2005).

The dimension of individualism and collectivism affects human thinking, feeling and acting in predictable ways (Arrindell, 2003). The dimension can be used to predict on a priori basis differences or similarities across and within cultures on measures of personality, affect and behaviour (Hofstede, 2001).

The study of culture and self by Markus and Kitayama (1991, 1994, 2010) has also been particularly influential in cross-cultural research. It has enhanced our understanding of the self, identity or agency, and is central to the analysis and interpretation of behaviour (Markus & Kitayama, 2010). Markus and Kitayama (1991, 1994, 2010) highlighted how experience is socio-culturally patterned and that the self reflects the individuals' engagement with the world, which is the source of this patterning. Differences in behaviour can be explained by what it means to be a self in a particular social context (Markus & Kitayama, 1991, 1994, 2010). The study of culture and self has led to the realisation that people and their socio-cultural worlds are not separate from each other. Instead they require each other and complete one another. In an ongoing cycle of mutual constitution, individuals are socio-culturally shaped shapers of their environment; they make each other up and are most productively analysed together (Shweder, 2003).

Markus and Kitayama (2010) defined that the self is the "me" at the centre of experience; a continually developing sense of awareness and agency that guides both action and takes shape as the individual (both brain and body) become attenuated to the various environments it inhabits. Selves are simultaneously schemas of past behaviour and patterns for current and future behaviour (Banaji & Prentice, 1994). Selves develop through symbolically mediated, collaborative interactions with others and the social environment (Kitayama, Duffy, & Uchida, 2007). Cultural variation across selves arises from differences in the images, ideas (including beliefs, values, and stereotypes), norms, tasks, practices and social interactions that characterise various social environments and reflects differences in how to attune to these environments (Markus & Kitayama, 2010).

Markus and Kitayama (1991, 1994, 2010) highlighted how selves are implicitly and explicitly at work in all aspects of behaviour (e.g., attention, perception, cognition, emotion, motivation, relationships, and group processes). Comparing people in different regions of the world has revealed differences in selves, or differences in patterns of attuning to contexts, that were not otherwise obvious. As a result of these comparisons, many processes (e.g., perception, cognition, emotion, motivation, relational and intergroup behaviour) previously thought to be basic, universal, and natural to human functioning, have been found to vary. These comparisons demonstrate the influence of the self on behaviour (Markus & Kitayama, 2010).

Two distinct types of social relations can be linked to divergent models of self (Markus & Kitayama, 1991, 1994, 2010). One type of sociality assumes that social relations are formed on the basis of instrumental interests and goals of participating individuals. This type of relationship can be labelled independent (Markus & Kitayama, 1991, 1994, 2010). Another type of sociality assumes that individuals are inherently connected and made meaningful through relationships with others. This type of relationship can be labelled

interdependent (Markus & Kitayama, 1991, 1994, 2010). Figure 3 represents independent and interdependent self-schemas. It depicts the different patterns of attenuating to the social world and two different senses of self or agency.
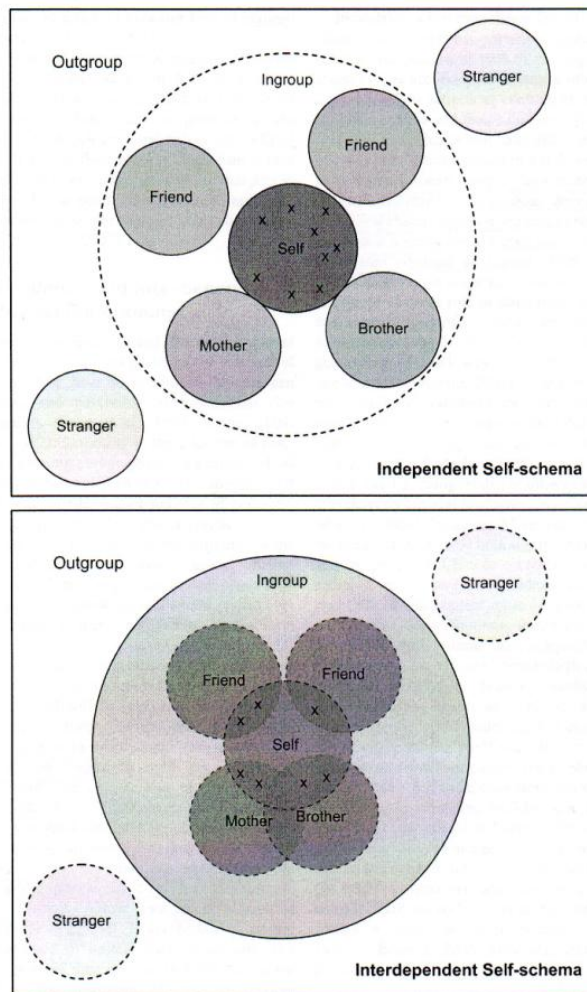
Figure 3. Conceptual Representations of Independent and Interdependent Schemas (Markus & Kitayama, 2010).

When an independent schema or self organises behaviour, the primary referent is the individuals' own thoughts, feelings and actions (Markus & Kitayama, 1991, 1994, 2010). Alternatively, when an interdependent schema or self organises behaviour, the immediate referent is the thoughts, feelings and actions of others with whom the person is in a relationship (Markus & Kitayama, 1991, 1994, 2010).

As shown in Figure 3, with an independent self schema, interaction with others (actual, imagined or implied) produces a sense of self as separate or independent from others (Markus & Kitayama, 1991, 1994, 2010). These interactions are guided by culturally prescribed tasks that require and encourage the development and reification of individual preferences, goals, beliefs and abilities (indicated by the Xs in the independent self-schema representation) (Markus & Kitayama, 1991, 2010). These attributes are frequently referred to by individuals and serve as a guide for action. The large dotted circle separates close relationships from more distant relationships, suggesting that people can move between in-group and out-group quite easily (Markus & Kitayama, 2010). In comparison with an interdependent self schema, interaction with others produces a sense of self as connected to or interdependent with others (Markus & Kitayama, 1991, 1994, 2010). These interactions are guided by culturally prescribed tasks that require and encourage fitting in with others (indicated by the Xs in the overlap between self and others in the interdependent self schema representation), taking others' perspective, reading the expectations of others, adjusting to others and using others as referents for action (Markus & Kitayama, 1991, 2010). The lines defining the self and others are dotted (whilst those defining the independent self-schema are solid) representing the idea that the self includes others. Additionally, the line that separates in-group and out-group is drawn with a solid line to indicate the significant distinction. People do not move easily across this line, frequently resulting in different behaviour toward in-group and out-group members (Markus & Kitayama, 2010).

Markus and Kitayama (1991, 1994, 2010) highlighted how people from different cultures hold different perceptions of the self, others and interdependence of the two. They proposed differences between individualistic and collectivistic cultures. In individualistic cultures (typically western countries), the self is viewed as an independent, self contained, autonomous unit. In contrast, in collectivistic cultures (typically non-western countries), the

self is viewed as an interdependent, related unit. These independent-interdependent views of the self influence all aspects of an individual including cognitions, emotions, behaviours and attitudes (Markus & Kitayama, 1991, 1994, 2010). Markus and Kitayama (1991) suggested that these differences are very powerful and that their influence is clearly reflected in differences amongst cultures.

Although the dimension of individualism and collectivism is very influential, it is also considered to have been 'overextended' to the point that it has become a catchall to explain a very large number of psychological differences across cultures (Kagitcibasi, 1997). Schwartz (1990) reported how the dimension is insufficient for numerous reasons. Firstly he considered that certain values that serve both individual and collective interests are overlooked if one focuses exclusively on the conflict between personal and group goals (e.g., wisdom is perceived an important goal/value whose pursuit guides behaviour in most societies to some extent). Secondly the dimension is considered to overlook important values that serve goals that are collective, but that are not those of the in-group (e.g., equality for all, social justice, and preserving the natural environment). These are proposed to be universal goals and values (Schwartz, 1990). Lastly the dimension of individualism and collectivism promotes the assumption that individualistic and collectivistic values each form two coherent syndromes that are in polar opposition.

Therefore Schwartz proposed an alternative model which is more dimensional in nature (Schwartz & Sagiv, 1995). This outlines ten types of values, including individual values (e.g., enjoyment, achievement, self-direction, social power and stimulation values) which serve the self-interests of the individual and also collective values (e.g., prosocial, restrictive conformity, security and tradition values) which focus on promoting the interests of others. According to Schwartz (1995) these dimensions each deal with basic concerns for all cultures and are postulated to be universal to a greater or lesser degree.

Despite Schwartz's (1990) critique, given that culture has not been considered extensively within the stigma literature, the dimension of individualism and collectivism has been selected as the focus for the current study.

1.5 Culture and Stigma

As discussed previously in Section 1.3, much of the stigma research to date has been completed on western samples and cultures (Corrigan, 2004). Hofstede (2001) has identified that cultures differ on various dimensions including individualism and collectivism. The importance of self construals has also been highlighted by Markus and Kitayama (1991, 1994, 2010) and how individuals from individualistic cultures[1] and collectivistic cultures[2] hold different self schemas. This appears central to the understanding and interpretation of attitudes and behaviour, and may help us to develop a better understanding of stigma.

Green et al. (2005) outlined how the constructs of individualism and collectivism are the most popular concepts studied in cross-cultural psychology. Relating this to stigma using Figure 3, it may be that in collectivistic cultures, where individuals view the self as interdependent, people with mental illness may be perceived as not conforming to group norms (being different from others and not fitting in). Therefore other group members may not wish to form relationships with them or include them as part of the group. As a result, people with mental illness may be forced to form the out-group and thus treated less favourably. This also links with the in-group/out-group bias of social identity theory (Tajfel & Turner, 1986) outlined in Section 1.2.2. In comparison, in individualistic cultures individuals view the self as independent, therefore people with mental illness may be viewed as being separate and independent from other people and therefore may not be so stigmatised.

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[1] Individualistic cultures refer to western cultures

[2] Collectivistic cultures refer to non-western cultures

Alternatively, it may be that in collectivistic cultures individuals may feel a sense of duty towards their group and feel connected to its members. Therefore people may be more accepting of individuals' with mental illness and willing to help them. Consequently they may be less stigmatised. As this question remains unanswered, it seems important that stigma and the attitudes towards people with a mental illness are investigated in collectivistic cultures.

As stigma prolongs mental illness and makes recovery more difficult, it is argued that anti-stigma programmes are a necessity in community psychiatric treatment (Corrigan, Watson, Warpinski, & Gracia, 2004). The National Service Framework for Mental Health (Department of Health, 1999) outlined in Standard One that discrimination against and social exclusion of mental health problems must be addressed. Angermeyer (2002) has highlighted the importance of anti-stigma interventions to be less intuition based and more evidence based. Given that the majority of stigma research has been conducted with western cultures (e.g., Angermeyer & Matschinger, 2003a, 2003b; Angermeyer, Beck, et al., 2003; Corrigan, Green, et al., 2001; Lauber et al., 2004; Link et al., 1987), this makes it difficult to generalise finding to non-western cultures. Thus it appears that further research in this area would be useful.

1.6 Literature Review

Given the gap in the literature, the aim of this review is to establish how much and what type of research has looked at attitudes towards mental illness in non-western cultures and whether existing stigma models can provide an appropriate basis for this research. As highlighted in Section 1.2, stigma refers to problems of knowledge, attitudes and behaviours (Thornicroft et al., 2007), therefore these three aspects will be explored in the review.

The question to be addressed in this review is:

- Do individuals' from non-western cultures hold stigmatising attitudes towards people with mental illness and if so, what factors are associated with stigma in this population?

1.6.1 Method.

1.6.1.1 Search protocol.

Articles were identified by searching four computer databases; PsychINFO (1806 to present), MEDLINE (1950 to present), EMBASE (1980 to present) and AMED (1985 to present). The Key words and Boolean connectors entered were:

1. Stigma*

2. Attitude* OR understand* OR perception* OR belie* OR opinion* OR knowledge* OR thought* OR view*

3. "Mental health" OR "mental ill*" OR "mentally ill" OR "mental well-being" OR "mental disorder"

4. "Non-western" OR "Ethnic minorit*" OR "BME" OR "immigrant" OR "cultur*" OR "individualis* versus collectivis*" OR "independen* versus interdependen*"

5. 1 AND 2 AND 3 AND 4

The 'thesaurus mapping' facility was used to check for other terms associated with the topic. This was done for each of the key word searches separately. Additional terms that were identified and considered to be relevant were then included in the corresponding key word search using the Boolean connector 'OR'. To optimise the retrieval of relevant literature, the databases were searched separately. The search was supplemented by tracking references from articles obtained to help identify additional relevant studies that had not already been

retrieved. Available abstracts and articles were reviewed to determine whether they met the inclusion criteria.

1.6.1.2 Inclusion and exclusion criteria.

1. The search was limited to documents in English.

2. Documents (e.g., book chapters, book reviews, dissertations) that were not published peer-reviewed journal articles were excluded.

3. Only studies that examined the general publics' and community attitudes towards mental illness in non-western cultures were included.

4. Individual case studies and articles exploring experiences of stigma were excluded, due to the focus of the current study being on community attitudes towards mental illness.

5. Studies that focused primarily on attitudes towards help seeking behaviour and attitudes towards healthcare facilities were also excluded. Studies investigating the effectiveness of specific interventions on stigmatising attitudes were also excluded, as these were not the focus of the current study.

6. Studies that focused on particular groups (e.g., healthcare professionals, religious groups or carers/relatives) were excluded as it was considered that their attitudes may not be representative of the general public. Research with students was included within the review as they were considered to form part of the wider community.

7. Only studies dating from 1990 onwards were included in the review, because of changes in public views over time (Angermeyer & Matschinger, 2004).

Figure 4 shows the process by which articles were selected for the review. Twenty-one articles met the selection criteria. These are outlined in Appendix A.

Figure 4. Flow Chart Outlining Steps of the Literature Review.

Initial search criteria using key words (outlined above) retrieved **513 documents**.

↓

Removal of documents not in English (21) and duplicates (1) left **491 documents**

↓

Removal of documents that were not peer-reviewed journal articles (e.g., book chapters, book reviews, dissertations) (201) resulted in **290 articles**

↓

Removal of articles that were not about stigma/attitudes (125) left **165 articles**

↓

Removal of articles that were about stigma/attitudes towards anything other than mental illness (40) left **125 articles**

↓

Removal of studies focussing on stigma in western/individualistic culture (8) left **117 articles**

↓

Removal of individual case studies (6) and articles exploring experiences of stigma (29) left **82 articles**

↓

Removal of articles predominantly investigating attitudes to help seeking behaviour and healthcare facilities (34) left **48 articles**

↓

Removal of articles focussing on interventions to overcome stigmatising attitudes (14) left **34 articles**

↓

Removal of articles focussing on the attitudes of particular groups towards mental illness (e.g., healthcare professionals, religious groups and carers/relatives) (15) left **19 articles**

↓

```
┌─────────────────────────────────────────────────────────┐
│  Removal of studies conducted prior to 1990 (3), left    │
│                   16 articles                            │
└─────────────────────────────────────────────────────────┘
                            │
                            ▼
┌─────────────────────────────────────────────────────────┐
│  Reference lists of the 16 articles were examined and 5  │
│           further relevant articles were found           │
└─────────────────────────────────────────────────────────┘
                            │
                            ▼
┌─────────────────────────────────────────────────────────┐
│                  Total = 21 Articles                     │
└─────────────────────────────────────────────────────────┘
```

1.6.2 Review of the literature.

Whilst reviewing the articles and examining the influence of culture on stigma, it became apparent that limited models and theories related to culture were used to guide the empirical studies. As outlined in Section 1.4.2.1, the dimension of individualism and collectivism is the most popular studied concept in cross cultural psychology (Green et al., 2005). Therefore, this seems a good framework to consider when discussing the literature.

The majority of studies reviewed used vignettes to examine attitudes towards mental illness (e.g., Anglin, Link, & Phelan, 2006; Dietrich et al., 2003; Griffiths et al., 2006; Hsu et al., 2008; Marie & Miles, 2007; Taskin et al., 2003). However, Jackson and Heatherington (2006) showed videotapes to their student sample. Six studies did not present any stimulus to participants regarding mental illness; attitudinal responses were assessed based on existing knowledge and experience (e.g., Adewuya & Makanjuola, 2005, 2008; Chong et al., 2007; Esterberg, Compton, McGee, Shim, & Hochman, 2008; Gureje, Lasebikan, Ephraim-Oluwanuga, Olly, & Kola; 2005; Whaley, 1997). Nine studies examined cross-cultural differences; five explored differences in stigmatising attitudes between western and non-western countries (e.g., Angermeyer, Buyantugs, Kenzine, & Matschinger, 2004; Dietrich et al., 2003; Griffiths et al., 2006; Kurihara, Kato, Sakamoto, Reverger, & Kitamura 2000;

Schomerus, Matschinger, Kenzin, Breier, & Angermeyer, 2006) and four explored differences between individualistic and collectivistic cultures within the same country (e.g., Anglin et al., 2006; Hsu et al., 2008; Marie & Miles, 2007; Whaley, 1997). Only two studies were conducted with student samples (e.g., Adewuya & Makanjuola, 2005; Jackson & Heatherington, 2006).

The articles identified can be grouped together into: cross-cultural comparisons, studies investigating general attitudes towards mental illness in non-western countries and studies investigating factors associated with stigmatising attitudes towards mental illness. For the purpose of this review, articles conducting cross-cultural comparisons will be considered first, followed by studies investigating general attitudes towards mental illness. Finally the role of specific factors (causal attributions, familiarity with mental illness, mental health knowledge and labelling) on stigmatising attitudes will be discussed.

1.6.2.1 Cross-cultural comparisons.

1.6.2.1.1 Comparisons across countries.

Griffiths et al. (2006) found that personal stigma and social distance towards mental illness was greater amongst the Japanese public than the Australian public, whereas perceived stigma was found to be greater in the Australian public compared to the Japanese public. These differences in stigmatising attitudes may be mediated by the differential value placed on individualism and conformity in the two countries (Griffiths et al., 2006). The authors highlighted that as people who have a mental illness are considered to deviate from the norm, it might be expected that this would impact more negatively in Japan (collectivistic culture), where conformity is more valued. Here individuals view the self as interdependent, therefore people with mental illness may be perceived as being different and not fitting in. As a result, other group members may not wish to form relationships with them and express a greater

desire for social distance. This is also in line with social identity theory (Tajfel & Turner, 1986), with the out-group (people with mental illness) being marginalised. The findings stress the importance of understanding stigma within the cultural context of each country.

This is one of the few cross-cultural studies where the authors attempt to explain their findings in relation to existing (culture) theory. Additional possible reasons for the findings are also discussed by the authors (e.g., different health care delivery systems resulting in different levels of contact individuals have with people with mental illness, and differences in public health education and stigma reduction programmes). Further strengths of the study include its design; a cross country comparison was conducted and a large sample size was employed, indicating sufficient power. However, the study only focuses on differences in stigmatising attitudes between the two countries. It does not explore whether differences exist in the various factors that have been shown to influence stigma (e.g., labelling, perceived causal attributions and familiarity). However, the authors did make some reference to these in their discussion. Due to the use of interviews in the study, participants' responses may have been influenced by social desirability. Additionally, the personal and perceived stigma items used in the study were originally devised for evaluating depression and therefore may not be optimal for detecting patterns of stigma in other disorders, such as schizophrenia (Griffiths et al., 2006).

Kurihara et al. (2000) found that the Balinese public had significantly lower Devaluation-Discrimination scores (indicating more favourable global attitudes towards people with a mental illness) than the public in Tokyo. Vignettes portraying different disorders were also presented to participants in both countries, followed by a series of questions relating to abnormality, social distance, self-prevalence, recovery, criminal responsibility, social readjustment and perceptions of dangerousness. This was to examine attitudes of the public towards people with psychiatric symptoms. Scores indicated that the

public of Bali had more favourable attitudes towards individuals with schizophrenia than the public of Tokyo. However, the public of Bali showed increased negative attitudes towards individuals with depression and OCD than the public of Tokyo. This study does not appear to be based on any psychological theory or model relating to culture or stigma. The favourable global attitudes towards people with mental illness were explained by the authors to be a result of the differences in the level of contact with mental illness; with Balinese participants having more contact with individuals with mental illness. This was attributed to the different health care delivery systems in the two countries, and the lack of psychiatric beds in Bali. Similar explanations were also proposed by Griffiths et al. (2006) for their findings. Kurihara et al. (2000) also attributed the increased negative attitudes towards individuals with depression and OCD to the less frequent contact with such patients, due to low prevalence rates of such illnesses. However as level of contact with people with mental illness (familiarity) was not measured in both studies, these claims remain unsubstantiated. Additionally, the Devaluation-Discrimination measure (Link et al., 1989) used looks at the extent that participants believe that 'most people' will devalue and discriminate against a person with mental illness, and therefore may not be an accurate representation of participants' attitudes. It would have been useful for the authors to use another stigma measure alongside this. Lastly a small sample size was recruited which may indicate insufficient power for the study.

These findings can be linked to theoretical framework of individualism and collectivism (Markus & Kitayama, 1991, 1994, 2010). Whilst both cultures are considered collectivistic, Japan (Tokyo) is considered more individualistic in its culture and Indonesia (Bali) more collectivistic in its culture (Hofstede, 2001). Therefore, it may be that participants from collectivistic cultures (e.g., Bali) feel a sense of duty towards one's group and feel more

connected to group members, due to the self being viewed as interdependent. Therefore individuals may be more accepting of people with mental illness and willing to help them.

These differences in individualism and collectivism may also account for the findings of Schomerus et al. (2006), in light of the absence of any theoretical framework being provided by the authors. They found that Discrimination-Devaluation scores were higher in Germany (individualistic culture) compared to Slovakia and Russia (collectivistic cultures), with no significant differences found between the latter two countries. This study was also interested in examining the relationship between psychiatric health care facilities in the different countries, and stigmatising attitudes towards people with mental illness. It was predicted that public attitudes towards people with mental illness would be less favourable in Slovakia and Russia, due to the rates of deinstitutionalisation in these countries (and therefore less level of contact with people with mental illness), compared to that in Germany. However, the results were contrary to what was expected. Thus these findings do not support the explanations provided by Kurihara et al. (2000) for the differences observed in their study. Again this study did not collect data regarding the level of contact participants had with people with mental illness, and therefore it was not possible to compare the groups on this measure. Additionally, it does not appear that the authors considered examining the relationship between level of contact and Devaluation-Discrimination scores, which is what they initially hypothesised.

As highlighted, findings from the studies conducted by Kurihara et al. (2000) and Schomerus et al. (2006) may also be attributed to cultural differences between the countries, in terms of individualism and collectivism. Strengths of the studies include that both studies investigated cross-country comparisons. Standardised measurement was used; the Devaluation-Discrimination measure (Link et al., 1989), which was translated and back translated to confirm equivalent translation. Participants in the study conducted by Kurihara

et al. (2000) were matched for age, education, gender and occupation, but a small sample size was obtained. In comparison, Schomerus et al. (2006) employed a large sample size and a good random sampling method was used. As the authors note, as the study was conducted in small cities the findings cannot be considered representative of the countries of Russia and Slovakia. Lastly, both studies (Kurihara et al., 2000; Schomerus et al., 2006) only focussed on the impact of familiarity (level of contact) on stigmatising attitudes towards mental illness. It may be that the observed differences were influenced by other factors that were not explored in the studies (e.g., labelling and perceived causal attributions).

1.6.2.1.2 Comparisons within countries.

Various studies have been conducted in America exploring whether cultural differences exist in stigmatising attitudes towards mental illness. Some of these are outlined below.

Whaley (1997) found that Asian Pacific Islander, African American and Hispanic participants perceived people with mental illness to be more dangerous compared to White American participants. The impact of level of contact (familiarity) with people with mental illness was also examined on perceptions of dangerousness in the study. Increased familiarity with people with mental illness was found to be negatively correlated with perceived dangerous, but only for White American participants. These differences were attributed by the authors to cultural factors. However these factors were not explained or discussed in the article. Whaley (1997) outlined how the public perceived that people with mental illness are dangerous, and that this was associated with a greater sense of fear, and an increased desire for social distance. However this framework was not explicitly tested in the study. No information was collected regarding participants emotional reactions towards people with

mental illness (e.g., fear), and the relationship between perceptions of dangerousness and social distance was not examined.

Similar findings were also reported by Anglin et al. (2006) who aimed to replicate Whaley's (1997) findings using a different methodology; vignettes of specific mental illnesses were used. Anglin et al. (2006) found that African Americans were more likely than Caucasians to perceive individuals with mental illness as being dangerous. Simultaneously, African Americans were less likely to believe that individuals with mental illness should be blamed and punished for their violent behaviour compared to Caucasians. The study not only captured the perceptions of the American public towards people with mental illness, but also provided information on how they would respond if a person with mental illness was to be violent. Again, this is another study that does not appear to be based on any theoretical framework, although the authors did attempt to explain their findings in relation to Weiner's (1995) attribution theory. However, this only attempts to explain the findings of blame and punishment. Additionally, the authors did not adequately explain the reasons for cultural differences in perceptions of dangerousness. The need for further empirical research is highlighted by the authors. Strengths of the studies include their design; cross-cultural comparisons were conducted. Large sample sizes were employed and good random sampling procedures were used. Both studies used telephone interviews in an attempt to overcome social desirability. Possible sample selection biases were also evaluated by Anglin et al. (2006). However, the number of participants from different cultural groups was found to be small in Whaley's (1997) study. Additionally, both studies had a narrow focus and only examined one specific aspect of stigma (perception of dangerousness).

Hsu et al. (2008) also reported that stigmatising attitudes were greater amongst Chinese Americans than Caucasian Americans. Participants were presented with five vignettes describing different depressive disorders and physical conditions, followed by a

questionnaire developed by the authors containing six factors relating to stigma (fear, shame, cognitive distortion, social consensus, discrimination and sanction). Composite scores constructed from ratings of each factor were used to calculate the total stigma score (higher scores indicating greater stigma). The total stigma and factor scores were found to be higher among Chinese participants than Caucasian participants for the disorders relating to both mental and physical health. Hsu et al. (2008) reported that their findings supported Stangor and Crandall's (2000) theory which outlines that perceived threat (e.g., fear, shame, distortion, social communication, consensus and sanction) results in stigma formation. However, the study did not investigate the order in which these factors occurred and thus limits our understanding of the process of stigma formation. The authors do not adequately explain the reasons for the cultural differences observed and the greater stigma in Chinese Americans. It should also be noted that although the questionnaire used was specifically developed for the study, no psychometric properties were reported. Therefore the reliability and validity of the results can be questioned. Additionally, the study did not examine the effect of factors such as labelling, perceived causal attributions, and familiarity on stigma formation, and whether there were differences in these factors between the two cultural groups. Hsu et al. (2008) reported that all Caucasian participants were born in America and that all Chinese participants were born outside America. However, no information was provided regarding the length of time Chinese participants had been living in America or their level of education. Thus, the impact of these variables on the findings is unclear. It may be that Chinese Americans were more strongly influenced by their cultural practices and beliefs. However, as these were not measured in the study, the cultural reasons for the differences in the stigma factors remain unknown (Hsu et al., 2008). Additionally a convenience sample was used, thus the findings may not be able to be generalised to the wider population.

The findings of the studies conducted by Whaley (1997), Anglin et al. (2006) and Hsu et al. (2008) may be explained by differences in individualism and collectivism across cultures. In all three studies, participants from collectivistic cultures were found to have more negative attitudes towards people with mental illness compared to participants from individualistic cultures. Therefore it may be that in collectivistic cultures, where the self is viewed as being interdependent, people with mental illness may be perceived as not conforming to group norms (being different from others and not fitting in). Therefore other group members may not wish to form relationships with them or include them as part of the group. As a result, people with mental illness may be forced to form the out-group and viewed less favourably (e.g., perceived as being dangerous and being more stigmatised). In comparison in individualistic cultures, the self is viewed as being independent, therefore people with mental illness may be seen as being separate and independent from other people, and therefore may not be so stigmatised.

Marie and Miles (2007) explored whether there were differences between Maori (collectivistic culture) and non-Maori (individualistic culture) views of mental health in New Zealand. No differences were found to exist with regard to problem identification (labelling), wellbeing or social distance. These findings may be explained in terms of acculturation; one of the possible reasons that no differences were found between the two groups were that Maori participants might have become acculturated to the more dominant non-Maori views of mental health. Findings also revealed that participants' who were more familiar with mental illness were more willing to engage in relationships with people with mental illness, compared to participants who did not know anyone with mental illness.

Marie and Miles (2007) developed the questionnaire used in the study and conducted a series of validity checks by distributing the vignette and questionnaire to colleagues, clinical psychologists and conducting a pilot study. Revisions were made to the questionnaire

at each stage. Although the authors explained their findings in terms of acculturation, no measure of acculturation was used in the study or incorporated into the questionnaire, thus making this difficult to verify. The authors did not report their findings regarding perceived causal attributions or whether any significant differences were found between the two groups on this factor. Additionally, the study only explored attitudes towards depression, therefore these findings cannot be generalised to other mental illness. Lastly, a small sample size was recruited, which may indicate insufficient power for the study.

1.6.2.2 Summary of cross-cultural comparisons.

Findings from cross-cultural studies conducted across countries are mixed. Griffiths et al. (2006) found that stigmatising attitudes were greater in collectivistic cultures compared to individualistic cultures. However the opposite was found in studies conducted by Kurihara et al. (2000) and Schomerus et al. (2006). The authors attempted to explain the differences observed in stigma between countries as being due to differences in familiarity (level of contact) with people with mental illness. This was attributed to differences in mental health care facilities. However, as familiarity with mental illness was neither measured nor reported in the studies, these claims remain unsubstantiated. In contrast all cross-cultural studies conducted within countries, except the study conducted by Marie and Miles (2007), found that stigmatising attitudes were greater amongst participants from collectivistic cultures compared with participants from individualistic cultures. This highlights the importance of investigating differences in stigma within cultures. Limited theories or models relating to culture were used to guide the research. Therefore the findings have been explained by the researcher in relation to the differences in the dimension of individualism and collectivism between cultures.

1.6.2.3 Studies conducted in non-western cultures.

Studies conducted in Nigeria by Gureje et al. (2005) and Adewuya and Makanjuola (2005, 2008), found widespread stigmatisation of mental illness among university students and the general community. The views about mental illness were generally found to be negative in all three studies, with people with mental illness perceived to be dangerous by the community samples. Most respondents were unwilling to have social interactions with people with a mental illness. Results showed that the level of desired social distance was seen to increase with the level of intimacy required in the relationship.

Although Gureje et al. (2005) reported investigating 'knowledge' of mental illness of the community in their article, only findings relating to perceived causal attributions were reported. No other factors shown to influence stigmatising attitudes towards people with mental illness were investigated in their study (e.g., labelling and familiarity with mental illness). Additionally, the relationship between the variables of perceived causal attributions and social distance was not examined. Adewuya and Makanjuola (2005) only investigated one of the factors shown to influence stigma, familiarity with mental illness, along with socio-demographic variables. Although data regarding participants' ethnicity were collected, findings of the study were not examined in relation to this. In both studies conducted by Adewuya and Makanjuola (2005, 2008) only one question was used to assess familiarity with mental illness. Social distance scores from all three studies were compared with social distance scores from research conducted in western cultures, and these were found to be comparable. This contradicts the claims that stigma and social distance are less evident in African countries (Fabrega, 1991). None of the studies were based on any models or theories relating to culture or stigma. Although stigmatising attitudes and discriminatory behaviour were explored in all three studies, stigma processes were not examined or explained. All the studies focused on mental illness generally, thus conclusions about attitudes may not

generalise uniformity for all mental disorders. All three studies had large sample sizes and therefore were considered to have sufficient power.

Chong et al. (2007) reported that the public of Singapore perceived people with mental illness to be dangerous and considered that the community should be better protected from them. Cultural differences were examined in the study; Malays were found to be the most tolerant towards people with mental illness compared to Chinese and Indian participants. Chong et al. (2007) explained their findings in terms of Malays' cultural and religious values of being Muslim. They highlighted how historically in Islamic society, illnesses were perceived to be trials from God, which if endured with patience, would result in reward. A large sample size was employed in the study and a reliable and valid measure was used; a modified version of the Attitudes to Mental Illness Scale (Glendinning, Buchman, & Rose, 2002). Interviewers were also trained to conduct the survey in their own ethnic languages, therefore allowing members of the public who were unable to understand English to also be included in the study. However, as with many of the other studies conducted in non-western cultures, this study was not based on any theoretical framework or model. This limits our understanding of the process of stigma formation. Additionally, the study only focussed on mental illness generally, therefore conclusions about attitudes may not be generalised to specific disorders. The use of interviews in the study may have influenced participants' responses in terms of social desirability.

Jadhav et al. (2007) found that participants from the rural community of India had higher stigma scores compared with participants from the urban community. These findings are contrary to what was predicted by the authors. The study highlighted how stigma can vary, and the importance of investigating stigma in different community contexts. The study used an ethnographic questionnaire and its psychometric properties were reported. The authors explained how the findings may be a result of the lack of accessible mental health

services in rural areas. They suggested that increased stigma in rural areas was due to participants having less contact with people with mental illness (and therefore less familiarity). Similar explanations have been provided from cross-cultural studies conducted across countries (e.g., Griffiths et al., 2006; Kurihara et al., 2000). However, data regarding participants' familiarity with mental illness was not collected in the study and therefore this hypothesis could not be confirmed. Additional limitations of the study include its small sample size and the use of a convenience sample.

Jackson and Heatherington (2006) found that Jamaican secondary school students desired more social contact with persons without mental illness followed by those with a 'history of mental illness of biomedical causes' and then those with a 'history of mental illness with psychological causes'. The findings demonstrated how students also hold stigmatising attitudes towards people with mental illness. Strengths of the study include its large sample size and also the use of videotapes to assess student attitudes. Thus the study appears to have good ecological validity. However, this is another study that does not appear to be based on any theories or models. Additionally, no attempts were made by the authors to explain their findings. Neither Jadhav et al. (2007) nor Jackson and Heatherington (2006) investigated the impact of additional factors shown to influence stigma in their studies.

Coker (2005) conducted a study in Egypt consisting of both quantitative and qualitative aspects. Quantitative findings showed that social distance varied significantly across the vignettes with alcohol abuse eliciting the greatest social distance. The qualitative analysis revealed that stigma is a reflection of a series of practical and moral judgements about the person's ability to fulfil a given role, their moral worth and their place in the social fabric. These judgements are fairly independent of psychiatric labels or other preconceived ideas of 'mental illness'. Qualitative research has the advantage of providing richer data and

this type of information may not have arisen in a quantitative design. The study highlighted the importance of stigma being understood within its cultural context.

1.6.2.4 Summary of studies conducted in non-western cultures.

Overall the research showed that attitudes towards mental illness were found to be negative in non-western cultures. However, no theories or models were used to guide any of the studies. Perceptions of dangerousness were found to be prevalent. Generally members of the public from non-western cultures were unwilling to have social interactions with people with mental illness. These findings are similar to research conducted in western cultures. Studies also showed that students desired increased social distance from people with mental illness. All of the studies except for the study conducted by Coker (2005) focused on attitudes towards mental illness in general and thus conclusions may not be generalised to specific disorders. Qualitative research conducted highlights the importance of stigma being understood within its cultural context.

1.6.2.5 Factors associated with stigma.

In this section articles examining the role of specific factors on stigmatising attitudes will be discussed. These include perceived causal attributions, familiarity with mental illness, mental health knowledge and labelling.

1.6.2.5.1 Causal attributions.

Dietrich et al. (2003) found that despite participants' different cultural backgrounds (German, Russian, Mongolian), similar trends were found with regard to attributing depression and schizophrenia to psychosocial causes rather than biological causes, resulting in reduced social distance. The study also compared the findings between western (Germany) and non-western (Mongolia and Russia) cultures. This revealed that in non-western cultures

there was a greater tendency to attribute causes to the individual themselves, that is in terms of the individual's 'lack of will power' and 'immoral life style', resulting in a greater desire for social distance. Possible reasons for these cultural differences were explained by the authors; firstly it may be that the illness concept is not so widespread amongst the general population in Mongolia and Russia as it is in Germany, resulting in a stronger tendency to blame those with mental illness for their disorder. Secondly, the different cultural and social backgrounds may also have led to different interpretations of the concept of morality, which may have a different significance in each of the countries.

The findings also suggested a positive relationship between biological causal beliefs (e.g., brain disease and heredity) and social distance. Dietrich et al. (2003) explained their findings in terms of Weiner's (1995) attribution theory; the more participants' blame individuals for their mental illness or behaviour, the more likely this will result in negative attitudes. Therefore it may be that the biological cause of 'brain disease' and the causes of 'lack of will power' and 'immoral life style' that individuals can influence themselves, are associated with lack of control (cognitive control in the former and personal/character control in the latter). This may lead the public perceiving people with mental illness as being dangerous and unpredictable. Consequently there is an increased desire for social distance from people with mental illness (Dietrich et al., 2003). Strengths of the study include its cross-cultural comparison. The authors also explained their findings in relation to possible cultural differences. Sample sizes were large, a good random sampling method was employed and interviews were conducted with all participants. Additionally, when interview scripts were translated from their original language, they were pre-tested before being used in the study. However, other factors shown to influence stigma (e.g., labelling and familiarity with mental illness) were not explored in the study.

Consistent with the findings of Dietrich et al. (2000) Bag, Yilmaz, and Kirpinar (2005) also found a positive relationship between biological causal beliefs (e.g., brain disease and heredity) and social distance for people with schizophrenia in Turkey. Findings were also explained by Bag et al. (2005) in terms of Weiner's (1995) attribution theory; when individuals consider that people with mental illness are responsible for their condition and blame them, this leads to anger, which in turn leads to social rejection. Dietrich et al. (2003) highlighted how attributing biological causes to mental illness may lead to perceptions that people with mental illness are lacking in control. Similarly Bag et al. (2005) outlined that if individuals with mental illness are perceived to be dangerous; individuals are more likely to react in fear, leading to social rejection. As the authors conducted interviews with participants, this allowed those who were unable to read or write to be included, thus providing a more representative sample. However, a standardised instrument was not used to measure attitudes; therefore the reliability of these findings can be questioned. Although Bag et al. (2005) attempted to explain the processes involved in stigma formation, the variables of perceived dangerousness and perceived responsibility were not measured in the study, therefore the exact process remains unclear. Findings from both studies are consistent with Corrigan's (2000) attribution model outlined in Section 1.2.2.

Gureje et al. (2005) and Adewuya and Makanjuola (2008) found widespread belief in supernatural factors as the cause of mental illness in Nigeria. This was associated with high social distance. Gureje et al. (2005) also reported how mental illness was perceived by some community members to be a divine punishment, implying that people with mental illness might in some way be deserving of it. These findings may also be explained by Corrigan's (2000) attribution model; it is possible that participants may consider that individuals are responsible and are to be blamed for their mental illness. They may be perceived as lacking in control and dangerous, a view endorsed by Dietrich et al. (2004). This may lead to negative

emotions such as anger and/or fear, resulting in increased avoidance. However, as with the study conducted by Bag et al. (2005), data regarding perceived dependency and perceived dangerousness were not collected by Gureje et al. (2005). Although this information was collected by Adewuya and Makanjuola (2008), findings were not reported in relation to these variables in their article. Thus the exact process of stigma formation remains unknown. Adewuya and Makanjuola (2008) highlighted how the various questions regarding perceived causal attributions in their study had forced choices, thus potentially limiting participants' responses. Additionally, other factors shown to influence stigmatising attitudes (e.g., labelling and familiarity with mental illness) were not explored by Gureje et al. (2005).

In contrast, Chong et al. (2007) reported that only a small number of participants in Singapore attributed mental illness to supernatural causes. The majority of participants considered that stresses in life were a causative factor. However, the association between causal beliefs and stigmatising attitudes was not explored in their study.

Overall, attributing mental illness to biological and supernatural causes was seen to increase desire for social distance in non-western cultures.

1.6.2.5.2 Familiarity.

Adewuya and Makanjuola (2008) reported that participants who had never cared for people with a mental illness reported higher levels of social distance. Similarly Marie and Miles (2007) and Esterberg et al. (2008) found that African American participants who were more familiar with mental illness had less desire for social distance.

Esterberg et al. (2008) compared their findings to studies conducted in western cultures, and the results were reported to be comparable. In line with existing research (e.g., Link & Cullen, 1986) the authors suggested that increased contact with people with mental

illness results in reduced perceptions of dangerousness. These improved perceptions resulted in the public being more willing to interact with people with mental illness. However due to perceptions of dangerousness not being measured in the study, the applicability of this model cannot be validated in non-western cultures. Reliable and valid measures were used to assess both social distance and knowledge of schizophrenia, however a series of non-standardised questions developed by the authors were used to assess familiarity, therefore these findings should be interpreted tentatively.

Research has consistently shown that individuals who have personal experience of mental illness report less desire for social distance from people with mental illness.

1.6.2.5.3 Mental health knowledge.

Esterberg et al. (2008) found that that there was no significant relationship between knowledge of schizophrenia and desire for social distance in African American participants. However, they did report that participants with friends and family with a mental illness had more knowledge about schizophrenia than those without such exposure, which is to be expected.

Sorsdahl and Stein (2010) showed that many participants in South Africa were unable to correctly identify the common mental disorders presented in the vignette study. High levels of stigma were reported by participants, although levels varied according to the different disorders. Schizophrenia was one of the disorders found to be most stigmatised. The authors reported how research (e.g., Angermeyer & Dietrich, 2006) had revealed that the most negative attributes were attached to people with schizophrenia; that they are unpredictable and violent. However, perceived dangerousness was not found to be statistically significant for any of the vignettes in the study and therefore the findings do not support those of Angermeyer and Dietrich (2006). Strengths of the study include its large sample size and the

use of reliable and valid measures. Although both mental health knowledge and stigmatising attitudes were investigated in the study, the relationship between these variables was not explored. Additionally, no other factors shown to influence stigma (e.g., labelling, perceived causal attributions and familiarity with mental illness) were explored in the study. It should also be noted that as a convenience sample was used, the results may not be generalisable to the wider South African population.

Limited studies have been conducted exploring the relationship between mental health knowledge and stigmatising attitudes in non-western cultures.

1.6.2.5.4 Labelling.

Taskin et al. (2003) and Bag et al. (2005) found that participants in Turkey who identified case vignettes as schizophrenia had more negative attitudes, and desired increased social distance. Bag et al. (2005) reported their findings in terms of labelling theory; that labelling of a mental illness was associated with an increased perception of dangerousness and neediness. The authors proposed that endorsing the stereotype of dangerousness had a strong negative effect on the way individuals reacted emotionally to people with schizophrenia, increasing their desire for social distance. However, as highlighted in Section 1.6.2.5.1, data regarding perceptions of dangerousness and emotional reactions towards people with mental illness were not collected in the study. Therefore the theoretical framework cannot be tested. Taskin et al. (2003) explained how the symptoms of schizophrenia were associated with 'mental illness' and that this was linked to the term 'insane person', resulting in greater stigmatising attitudes. This is consistent with Scheff's (1966) labelling theory. Although Taskin et al. (2005) attempted to explain the processes involved in stigma formation, they did not make any links between their findings and existing theoretical models relating to stigma.

Ozmen et al. (2004) found that participants in Turkey who perceived depression as a 'disease' had negative attitudes towards these individuals and a greater desire for social distance. In contrast, participants who perceived depression as a somatic illness had more positive attitudes and less desire for social distance. The authors suggested that participants in the study associated the term 'disease' with 'mental disease'. Nearly half of the participants perceived depressed patients as being aggressive. Social distance scores were compared to studies conducted in western cultures. These showed that participants in Turkey had a stronger tendency to reject patients with depression compared to participants from western cultures. The Turkish community showed a preference for avoiding patients with depression, and the level of desired social distance was seen to increase with the level of intimacy required. This finding is consistent with research conducted in western and non-western cultures. Strengths of the study include its large sample size, which was considered to be representative of the population. Ozmen et al. (2004) did not consider their findings in relation to any theories or models relating to stigma or culture. However, they did consider the influence of language on perceptions of mental illness. The authors highlighted how labels given by participants influenced attitudes towards individuals with mental illness, and that negative reactions towards such individuals were not exclusively based on observed behaviour. This demonstrates the importance of the use of language in cross-cultural research.

All of these studies are in line with Scheff's (1966) labelling theory, which proposes that psychiatric labelling triggers negative stereotypes, leading to increased discrimination.

Angermeyer et al. (2004) found that labelling was positively correlated with people's desire for social distance in Novosibirsk (Russia) and Ulaanbaatar (Mongolia). These findings were compared to an earlier study conducted in Germany (Angermeyer & Matschinger, 2003a) and were found to be similar. However, differences were found in

Russia and Mongolia compared to Germany with regard to how people with mental illness were perceived (e.g., dangerousness) as a result of the labels used. These findings are in line with the social psychological model (e.g., Angermeyer & Matschinger, 2003a; Corrigan, Edwards, et al., 2001). This demonstrates how labelling the person as having a mental illness (experience) leads to different beliefs about the person with mental illness in the three countries (perception), evoking different emotions (affect) which resulted in a greater preference for social distance (response). This again highlights the importance of understanding stigma within the culture situated. Other factors shown to influence social distance (e.g., perceived causal attributions and familiarity with mental illness) were not investigated within the current study. Therefore similarities and differences in the stigma components (perceptions, affect and responses) between western and non-western cultures for these factors remain unknown. Sample sizes were adequate and the same sampling method was used in all countries. The structured interview used in Germany was translated into Russian and Mongolian following guidelines developed by the World Health Organisation (Sartorius & Kuyken, 1994). These were translated to ensure cultural adequacy and used in a pilot study to ensure reliability before use in the study. Despite this, the authors acknowledged that a cultural bias may still exist, which in the end remained unknown. Additionally, the use of interviews may have influenced participants' responses in terms of social desirability.

All of the studies have demonstrated that the labelling of mental illness leads to an increased desire for social distance in non-western cultures.

1.6.2.6 Summary of factors associated with stigma.

The relationship between the factors of causal attributions, familiarity with mental illness, mental health knowledge, labelling of mental illness and stigmatising attitudes were

examined. In terms of perceived causal attributions, participants who endorsed psychosocial causes desired less social distance from people with mental illness in comparison to participants who endorsed biological causes. Belief in supernatural causes was also shown to lead to an increased desire for social distance. Consistent with research in western countries, participants who reported having personal experience of mental illness reported less desire for social distance from people with mental illness. Esterberg et al. (2008) found no significant relationship between mental health knowledge and desire for social distance. However not many studies have been conducted in non-western cultures exploring this relationship. Further research is need in this area. Labelling of mental illness was seen to have a negative effect and resulted in an increased desire for social distance from people with mental illness. The findings have been explained in relation to attribution theories (e.g., Corrigan, 2000; Weiner, 1995) labelling theory (e.g., Scheff, 1966) and the social psychological model (e.g., Angermeyer & Matschinger, 2003a; Corrigan, Edwards, et al., 2001).

1.6.3 Discussion.

This review evaluated research that has examined attitudes towards mental illness in non-western cultures to answer the following question:

- Do individuals' from non-western cultures hold stigmatising attitudes towards people with mental illness and if so, what factors are associated with stigma in this population?

The review highlighted that limited studies have explored stigma in non-western cultures. Most of these have focused on attitudes towards schizophrenia and depression (e.g., Bag et al., 2005; Dietrich et al., 2003; Griffiths et al., 2006; Ozmen et al., 2004). The majority of the studies were conducted with adults (e.g., Hsu et al., 2008; Marie & Miles,

2007; Gureje et al., 2005; Adewuya & Makanjuola, 2008; Coker, 2005) with only a few cross-cultural comparisons (e.g., Anglin et al.,2006; Kurihara et al., 2000; Schomerus et al., 2006; Whaley, 1997). The review revealed that there have been no cross-cultural studies between or within countries, comparing different cultural groups on the factors of labelling, perceived causal attributions and familiarity with mental illness. Additionally, there have been no studies conducted in the UK comparing stigmatising attitudes between western and non-western cultures. Whilst reviewing the literature, it became apparent that limited cultural models or theories have been applied to the studies. As the dimension of individualism and collectivism is the most popular studied concept in cross-cultural psychology (Green et al., 2005), this was considered to be a good framework to start with and findings from cross-cultural studies have been discussed in relation to it.

Findings from cross-cultural studies conducted across countries are mixed; stigmatising attitudes were found to be greater in collectivistic cultures compared to individualistic cultures in one study (Griffiths et al., 2006), whilst other studies found stigma to be greater in individualistic cultures (Kurihara et al., 2000; Schomerus et al., 2006). Studies conducting cross-cultural comparisons within countries consistently revealed that stigma was greater amongst individuals from collectivistic cultures compared with individuals from individualistic cultures.

Relating this to the dimension of individualism and collectivism, in collectivistic cultures, where the self is viewed as being interdependent, people with mental illness may be perceived as not conforming to group norms (being different from others and not fitting in). Therefore other group members may not form relationships with them or include them as part of the group. As a result, people with mental illness may be forced to form the out-group and be treated less favourably. This is also in line with the in-group/out-group bias of social identity theory (Tajfel & Turner, 1986). In comparison in individualistic cultures, the self is

viewed as being independent, therefore people with mental illness are viewed as being separate and independent from other people and therefore may not be so stigmatised. Alternatively, it may be that in collectivistic cultures individuals may feel a sense of duty towards their group and feel connected to its members. Therefore people may be more accepting of individuals' with mental illness and willing to help them. Consequently they may be less stigmatised. This question continues to remain unanswered.

The differences observed in stigmatising attitudes between individualistic and collectivistic cultures in the studies conducted between counties and within countries, may be due to acculturation. Acculturation has been defined as "Those phenomena which result when groups of individuals having different cultures come into continuous first-hand contact with subsequent changes in the original patterns of either or both groups" (Redfield, Linton, & Herskovits, 1936, p.149). When different cultures come into contact (as in the cross-cultural studies conducted within countries), different psychological processes are proposed to be ongoing that may account for the differences observed across the groups (Berry, Poortinga, Breugelmans, Chasiotis & Sam, 2011). Berry (1997) outlined a number of different strategies used by individuals to acculturate. However as none of the cross-cultural studies (conducted within countries) used any measure of acculturation, this process is difficult to verify along with which of Berry's (1997) acculturation strategies may have been employed.

The review also highlighted that no theories or models were used to guide the studies conducted in non-western countries. The majority of studies were also found to focus on mental illness in general. Overall, attitudes towards people with mental illness were found to be negative. Generally, members of the public were unwilling to have social interactions with people with mental illness. Social distance was seen to increase with the level of intimacy required in the relationship. Studies conducted with student samples also mirrored these

findings (e.g., Adewuya & Makanjuola, 2005; Jackson & Heatherington, 2006). This is consistent with research findings from western cultures.

The factors of perceived causal attributions, familiarity with mental illness and labelling of mental illness were all found to influence stigmatising attitudes. These factors have also been shown to influence stigma in western cultures. In terms of causal attributions, individuals who endorsed psychosocial causes desired less distance from people with mental illness compared to individuals who endorsed beliefs in biological or supernatural causes. These findings may be explained by Corrigan's (2000) attribution model; attributing the cause of mental illness within the individual, may lead to perceptions that the person is more dangerous, leading to increased fear, resulting in greater social distance. However, data regarding perceived dangerousness and emotional reactions were not collected in some studies (e.g., Bag et al., 2005; Gureje et al., 2005). Therefore this model has not been explicitly tested in non-western cultures. Studies have also demonstrated that individuals who are more familiar with mental illness reported less desire for social distance. Consistent with research conducted in western cultures, labelling of mental illness was also shown to result in increased social distance. This is in line with Scheff's (1966) labelling theory which proposes that psychiatric labelling triggers negative stereotypes leading to increased discrimination. The importance of the use of language on perceptions of mental illness has also been pointed out by Ozmen et al. (2004). Therefore it appears that existing stigma theories may also fit across non-western cultures. However, further research is needed to test the applicability of these in non-western cultures. Using the social psychological model (Angermeyer et al., 2003a; Corrigan, Edwards, et al., 2003), Angermeyer et al. (2004) reported how cultures may differ in the components of stigma. This highlights the importance of understanding stigma within the culture situated. No significant relationship was found between mental health knowledge and desire for social distance. However not many studies have explored this

relationship and therefore further research is needed. This could be useful in the implementation of anti-stigma programmes.

Lastly, many of the studies reviewed suffered from methodological flaws. Most of research reviewed had large sample sizes and therefore sufficient power (e.g., Adewuya and Makanjuola, 2005, 2008; Griffiths et al., 2006; Gureje et al., 2005). However others had limited samples leaving them more vulnerable to Type II errors (e.g., Jadhav et al., 2007; Kurihara et al., 2000; Marie & Miles, 2007). Some studies did not report the use of standardised measures, therefore making it difficult to assess the reliability and validity of the findings (e.g., Bag et al., 2005; Esterberg et al., 2008; Hsu et al., 2008). Furthermore, the use of interviews in many of the studies may have influenced participants' responses in terms of social desirability (e.g., Angermeyer et al., 2004; Chong et al., 2007; Griffiths et al., 2006).

1.7 Shame, Honour and Stigma

In collectivistic cultures, stigma affects not only the individual sufferer but also the whole family (Killian & Killian, 1990; Pirani, 2009). Al-Dawi et al. (2002) have suggested that societal attitudes are more devastating than the mental illness itself. In Pakistani culture and other non-western cultures derived from the Indian subcontinent, the term 'izzat' is used to depict family honour, and is closely related to reflected shame (the shame that can be brought to others by one's own behaviour and actions). Izzat has been described as a learnt, complex set of rules an Asian individual follows in order to protect the family honour and maintain one's position in the community (Gilbert, Gilbert, & Sanghera, 2004).

Prominent expressions of stigma were reported in the studies outlined in Section 1.6.2. Similar findings have also been reported in research conducted with communities from the Indian subcontinent, in the UK and their respective home countries. Tabassum, Macaskill and Ahmed (2000) found prejudicial attitudes towards individuals with mental illness within

the Pakistani community in the UK. Participants were willing to interact with people with mental illness at a superficial level, but none would consider marriage, and less than half of the participants would socialise with people with mental illness. Findings reported by Suhail (2005) with participants in Pakistan mirrored these. Tabassum et al. (2000) also found that a high number of participants (35%), were reluctant for a family member to be hospitalised for treatment of mental illness due to the social stigma and associated shame.

Thara and Srinivasan (2000) explored the extent to which stigma was experienced by primary caregivers of individuals with chronic schizophrenia in India. Results showed that 38% of primary caregivers experienced high levels of stigma; participants reported being treated differently by their neighbours, marriage prospects were perceived to be ruined for other family members, and they were frequently blamed for the illness.

Pirani (2009) reported that close family members of participants in Pakistan were often stigmatised and many experienced difficulties arranging marriages or acquiring jobs as the family carried with it the negative and stigmatising reputation of 'madness'.

Al-Subaie and Alhamand (2000) claimed that many Muslims often deny the existence of mental health problems and do not seek help for their difficulties because they think that this may bring shame upon their families, as well as affecting their individual status within the community (izzat).

The studies outlined above highlight how issues relating to marriage are a particular concern within collectivistic cultures not only for the individual, but also for family members. Mesquita (2001) highlighted how in collectivistic cultures, emotions are linked to how behaviours reflect on others, whereas in individualistic cultures emotions such as pride and shame relate to reflections of the self. As collectivistic cultures view the self as interdependent, it is likely that individuals within these groups know each other and also their

family members. Therefore stigmatising attitudes towards mental illness and issues of izzat and shame may be more prominent. Gilbert et al. (2004) found that izzat played a powerful role in their study conducted with South Asian women living in the UK; "The fear of bringing shame to others was linked to socially defined rules and prescriptions for reputation gaining and maintaining, via culturally transmitted systems of honour (izzat). To lose honour or to bring dishonour is to be externally shamed, lose status in the eyes of others' or even disowned by the family and community" (Gilbert et al., 2004, p.126). Therefore it appears that honour (izzat) and shame are key issues in non-western cultures, and may help us to understand why stigmatising attitudes towards mental illness are so prominent within these communities.

1.8 Culture and Stigma Summary

Attitudes towards mental illness and factors associated with these attitudes have not been researched as extensively in non-western cultures as in western cultures (Corrigan, 2004). However, the results from the literature review have suggested that individuals from non-western cultures hold stigmatising views. The factors of perceived causal attributions, familiarity with mental illness and labelling of mental illness were all found to influence stigmatising attitudes. More research is needed in the area to clarify the role of factors such as mental health knowledge and its relationship with stigma. Further cross-cultural studies would help develop a better understanding of stigma. Limited cultural models or theories were found to be applied to these studies, which are needed in order to inform future work on stigma. Studies should also be conducted to investigate stigma associated with other mental disorders such as anxiety.

The review did not identify any studies conducted in the UK with individuals from non-western cultures. Most studies have either focused on a particular culture within a

country or different cultures across countries. A number of studies have examined cross

cultural differences within countries, but these were mostly conducted in America. This is of

increasing interest given the growing multi-cultural society. This would help to identify if any

cultural differences do exist and help inform anti-stigma programmes. Additionally, most of

the stigma research has been conducted with adults. Not much research has been done with

adolescents (Link et al., 2004). Furthermore, it may be that the theory that underpins stigma

research needs to be modified to be more applicable to those from different cultures. Issues

relating to shame and honour in collectivistic cultures have also been considered. These may

be important in understanding why stigmatising attitudes towards mental illness are

prominent within these communities.

1.9 Adolescents

1.9.1 What is adolescence?

Adolescence is the transitional period between childhood and adulthood (between the

ages of about 12-19; Eysenck, 2004). It is a critical stage in the development of attitudes

towards politics, religion and morality (Adelson, 1975; Kohlberg, 1976), and may also be a

discrete phase in the development of attitudes towards mental illness.

1.9.2 Theories of adolescence.

According to Erikson's (1968) theory of psychosocial development, adolescence is

the period where individuals develop a sense of identity; an enduring and unified concept of

the self. Erikson (1968) suggested that there are eight stages of personality development,

each presenting a particular psychosocial crisis. In adolescence the main crisis is identity

versus identity diffusion. During this stage, the young person struggles with the question of

who they are and what kind of person they will be. Over time, individuals come to know and

accept themselves through the process of development and recognise their own unified 'self sameness and continuity'. Alongside this, individuals identify with the norms and values of society and culture, find their own identity within that framework and also experience a shared identity or some kind of essential character with others. For Erikson (1968), adolescence is influenced by both physical and social forces. Young people should emerge from this stage with a firm identity.

Extending the work of Erikson (1968), Marcia (1980) proposed four 'statuses' of adolescent identity formation which characterise the search for identity. Marcia (1980) believed that a mature identity can only be achieved if an individual experiences several crises in exploring and choosing between life's alternatives, finally arriving at a commitment or investment of the self in those choices. The four identity statuses as defined by high/low commitment and high/low crises are outlined in Table 1.

Table 1.

The Four Identity Statuses Proposed by Marcia (1980)

		Degree of Crisis	
		High	Low
Degree of Commitment	High	Identity Achievement Status	Foreclosure Status
	Low	Maratorium Status	Identity Diffusion Status

The four statuses proposed are defined as follows:

Identity Diffusion Status: The individual has not really started thinking about issues seriously, let alone formulated any goals or made any commitment. This represents the least mature status.

Foreclosure Status: The individual has avoided the uncertainties and anxieties of crisis by quickly and prematurely committing to safe and conventional (parental) goals and beliefs. In this status alternatives have not been seriously considered.

Maratorium Status: This is the height of the crisis as described by Erikson (1968). Decisions about identity are postponed while the individual tries out alternative identities, without committing to any particular one.

Identity Achievement Status: The individual has experienced a crisis but has emerged successfully with firm commitments, goals and ideology. This represents the most mature status.

Although the identity moratorium is a prerequisite for identity achievement, Marcia (1980) does not perceive the four statuses as stages that all individuals have to go through, unlike Erikson (1968).

Social identity theory (Tajfel & Turner, 1986), which was described in Section 1.2.2, is also pertinent to the identity formation of adolescents. As highlighted, people prefer to have a positive identity rather than a negative one (Tajfel & Turner, 1986). Since part of our identity is defined in terms of group membership, it follows that there will be a preference to view those in-groups (including oneself) positively and out-groups (different to oneself) negatively. Therefore when considering the issue of stigma towards mental illness, it is likely that people with mental illness (out-group) will be perceived more negatively by

adolescents compared to people without mental illness (in-group) and therefore more likely to experience discrimination from them.

Given that adolescence is a critical stage in the development of attitudes (Adelson, 1975; Kohlberg, 1976) and a period when individuals develop a sense of identity (Erikson, 1968), it seems an important time investigate attitudes towards people with mental illness. Corrigan et al. (2005) highlighted the importance of including adolescents in research. They stress how advocacy and government groups have placed emphasis on modifying negative attitudes among adolescents in an attempt to stop them from developing into adults who stigmatise people with mental illness. Additionally, given the differences in cognitive development between adolescents and adults, it is difficult to generalise findings from adult to adolescent samples (Corrigan et al., 2005). To date, limited studies have been conducted exploring stigma towards mental illness in adolescents (Link et al., 2004). Before moving on to discuss the present study, studies investigating stigma in adolescents are reviewed.

1.9.3 Adolescents and stigma.

Norman and Malla (1983) found that a belief in psychosocial causes and treatment by adolescents was positively related to expectations of a good prognosis for those with mental illness, than was a belief in physical causes and treatment. Individuals who favoured psychosocial treatment showed less desire for social distance. This is in line with Weiner's (1995) attribution theory; if the causes of mental illness are attributed to factors outside the individual's control (e.g., psychosocial), people's reactions and behaviours towards these individuals will be less negative (e.g., desire for social distance). The authors clearly reported that the relationships between the variables investigated did not demonstrate a causal relationship.

Coleman, Walker, Lee, Friesen, and Squire (2009) found causal beliefs relating to parenting, substance abuse and not trying hard enough were frequently endorsed as causes for depression by children and adolescents. On comparison of beliefs about causation between youth from different ethnic groups: Asian, Pacific Islander and Hispanic youths were more likely to endorse parenting as the cause of mental illness than the comparison group. These beliefs were found to be correlated with greater social distance. Relating this to Weiner's (1995) attribution theory; it appears that the youth considered that people with mental illness were to blame for their condition, thus resulting in a greater desire for social distance. These findings differ from those of Norman and Malla (1983), indicating that further research is needed to examine perceived causal attributions of mental illness and its associated stigma in children and adolescents.

Jorm and Wright (2008) conducted a national telephone survey with young Australians examining the predictors of the various components of stigma. They found that adolescents generally held negative views towards mental illness, but that the strength of this varied between different disorders. Having personally had help for a mental disorder and/or having a family member or friend who had received help for a mental disorder was associated with lower scores of social distance. Additionally, all aspects of stigma except 'stigma perceived in others' were found to be lower in female participants. This may be explained by social desirability. This is the only study to date measuring stigmatising attitudes in both parents and youth.

Corrigan et al. (2007) found that participants who considered that individuals with mental illness were responsible for their illness expressed more anger and less pity towards them. This in turn was related to being less willing to help them and endorsing treatment in segregated settings. No significant effects of gender, ethnicity or educational level were found. These findings are consistent with Weiner's (1995) attribution theory; the more the

causes of mental illness are attributed to factors within the individual's control, the more negative peoples' reactions and behaviours towards these individuals will be. Children who perceived people with mental illness as being dangerous were likely to be fearful of them and try to avoid them. This is in line with Corrigan's attribution (2000) model that suggests that attributions lead people to make inferences about responsibility (e.g., people with mental illness are dangerous), which then evoke emotions in individuals (e.g., fear). Subsequently this influences behaviours (e.g., avoidance).

Corrigan et al. (2005) attempted to validate findings from the literature examining stigma in adult populations with an adolescent sample. Results showed that peers who abused alcohol were the most stigmatised, followed by peers with a mental illness. Adolescents who perceived that individuals' were responsible for their illness and were dangerous demonstrated more discrimination towards them. This is also in line with Corrigan's (2000) attribution model. These findings are consistent with the research conducted with adults. However, adolescents who reported more familiarity with mental illness were more likely to endorse stigmatising attitudes. This relationship was opposite to that expected. It is possible that familiarity could have mediated strong connections between dangerousness and avoidance already associated with mental illness. The authors highlighted how further research is needed to clarify the relationship between familiarity and social distance.

Secker, Armstrong and Hill (1999) and Bailey (1999) conducted qualitative studies with young people in the UK. Secker et al. (1999) found that when behaviours described in vignettes could be understood as an extension of participants' own behaviour, young people were reluctant to label these as mental illness. Conversely the opposite was found for behaviours that young people could not identify with. In terms of attitudes, responses were not related to whether the participants considered that the person had a mental illness; responses were found to be related to the type of behaviour and age of the individual

described in the vignette. In Bailey's (1999) study, young people demonstrated a wide range of responses relating to their understanding and acceptance of people with mental illness.

Most of the studies conducted with adolescents used large sample sizes (e.g., Coleman et al., 2009; Corrigan et al., 2005, 2007; Norman & Malla, 1983; Jorm & Wright, 2008). It is positive that some studies examined the effects of ethnicity on attitudes (e.g., Coleman et al., 2009; Corrigan et al., 2007), allowing us to develop a better understanding of stigma in adolescents. However the use of an online survey by Coleman et al. (2009) may have resulted in participants from lower socio-economic groups being underrepresented in the study. Jorm and Wright (2008) and Corrigan et al. (2005, 2008) used reliable and valid measures; the Personal and Perceived Stigma Scale (Griffiths, Christensen, Jorm, Evans, & Grove, 2004) was used by Jorm and Wright (2008), the revised Attribution Questionnaire (Watson et al., 2004) was used Corrigan et al. (2005, 2008). As other studies (e.g., Coleman et al., 2009; Norman & Malla, 1983) did not report the use of standardised measures, this makes it difficult to assess the reliability and validity of the findings. The qualitative studies conducted (e.g., Bailey, 1999; Seckler et al., 1999) allowed richer data to be collected regarding adolescents attitudes towards mental illness, which may not have arisen in a quantitative design.

1.10 Adolescents Summary

Link et al. (2004) highlighted how only a limited number of studies have investigated the attitudes of adolescents towards individuals with mental illness (e.g., Bailey, 1999; Coleman et al., 2009; Corrigan et al., 2005, 2007; Norman & Malla, 1983; Jorm & Wright, 2008; Seckler et al., 1999). The studies reviewed examined the relationship between the components of attitudes towards mental illness, predictors of stigma towards people with mental illness and whether adult stigma theories and literature could be applied to

adolescents. Qualitative studies have also been conducted exploring young people's understanding of mental illness. The findings have demonstrated the need for further research on this topic, especially in light of mixed findings of perceived causal attributions and familiarity with mental illness and their relationship with stigma. As with adult studies, research with adolescents appears to have been predominantly conducted in western cultures. There do not appear to be any studies conducted with adolescents in non-western cultures. However it is positive that some studies have examined the effects of ethnicity on attitudes (e.g., Coleman et al., 2009; Corrigan et al., 2007). Given the lack of research conducted in non-western cultures and how adolescence has been identified as an important stage in the development of attitudes (Adelson; 1975; Kohlberg, 1976) and identity formation (Erikson, 1968), it therefore seems an important time to investigate stigma.

1.11 Present Study

Research indicates that people from western and non-western cultures hold stigmatising attitudes towards mental illness. However most of the research to date has been completed on western samples and as such is potentially biased by western perceptions of psychology and society (Corrigan, 2004). The literature review conducted in Section 1.6 revealed that there have been no studies comparing stigma between western and non-western cultures in the UK. No studies have been conducted examining differences between factors shown to influence stigmatising attitudes, such as labelling of mental illness, perceived causal attributions and familiarity with mental illness. Whilst reviewing the literature examining the influence of culture on stigma, it became apparent that limited models or theories were used to guide the empirical studies. Green et al. (2005) have outlined how the constructs of individualism and collectivism are the most popular studied in cross-cultural research. Therefore this seems a good place to start in the current study. Given that adolescence is a critical stage in the development of attitudes (Adelson, 1975; Kohlberg, 1976) and a period

when individuals develop a sense of identity (Erikson, 1968), it seems important to investigate adolescents' attitudes towards people with mental illness. Limited studies have been conducted exploring stigma towards mental illness in adolescents (Link et al., 2004). Thus, there are currently gaps in our understanding of stigma in young people (Jorm & Wright, 2008; Watson, Miller, & Lyons, 2005). It has been argued that modifying negative attitudes among adolescents might reduce the likelihood of them developing into adults with stigmatising attitudes (Corrigan et al., 2005). Therefore it is important that further research is conducted with this age group. Exploring stigma in both non-western cultures and amongst adolescents has important clinical implications including developing a better understanding of the construct of stigma, understanding how mental illness is constructed and construed in adolescents and different cultures, and aiding the development of appropriate anti-stigma campaigns. Furthermore, it may be that the theory that underpins stigma research needs to be modified to be more applicable to adolescents and non-western cultures.

This study therefore aims to combine both aspects and investigate cultural differences in stigma towards mental illness in the UK using British (Individualistic culture) and Pakistani (Collectivistic culture) adolescents. Research has demonstrated that the UK and Pakistan are culturally different. Specifically, individuals from these cultures differ greatly on dimensions of individualism (UK = 89, Pakistan = 14) versus collectivism (Hofstede, 2001). These differences are known to influence attitudes, beliefs and values (Markus & Kitayama, 1991). Therefore it is important to understand if there are any differences in stigma towards mental illness between these groups.

The Pakistani community is the largest Black and Minority Ethnic (BME) group in Peterborough, where this study was conducted (Office for National Statistics, 2010). The Department of Health (2005) reports how better information and more appropriate mental health services need to be provided for BME groups. In order to do this effectively, we need a

better understanding of how mental illness is perceived by different communities. This study is a step towards this.

As highlighted, stigma refers to problems of knowledge, attitudes and behaviours (Thornicroft et al., 2007). All three aspects will be explored within the current study. Factors that have been shown to influence stigmatising attitudes (perceived causal attributions, labelling of mental illness and familiarity with mental illness) will also be examined further to see if cross cultural differences exist.

1.12 Research Questions

The study aims to contribute to the existing literature in the area of stigma by investigating whether there are cultural differences in stigmatising attitudes towards people with mental illness. Comparisons will be made between British (individualistic culture) and Pakistani (collectivistic culture) adolescents living in the UK. The study will also examine whether there are cultural differences in factors that have been shown to influence stigmatising attitudes, such as perceived causal attributions, labelling of mental illness and familiarity with mental illness.

In order to examine this aim the following research questions will be addressed.

1. Is there a difference in stigma towards mental illness between English and Pakistani adolescents living in the UK?
   a) As indexed by social distance
   b) As indexed by devaluation and discrimination
2. Is there a difference in perceived causal attributions of mental illness between English and Pakistani adolescents living in the UK?

3. Is there a difference in the identification and labelling of mental illness between English and Pakistani adolescents living in the UK?

4. Given the different findings regarding familiarity and level of contact with those with mental illness and the desire for social distance with adolescents (Corrigan et al., 2005; Jorm & Wright, 2008), a secondary research question will investigate whether there is a difference in the level of contact English and Pakistani adolescents living in the UK have with individuals' with mental illness.

CHAPTER 2

2. Method

2.1 Chapter Overview

In this chapter the study design is outlined, followed by participant information and a description of the recruitment process. Measures used within the survey are discussed and their use in previous stigma research is highlighted. The procedure for the study is outlined and ethical issues are considered. Finally the plan for statistical analyses is provided.

2.2 Design

A quantitative non-experimental cross-sectional group design was used. All measures were collected at one time point by survey. The study used an independent groups design comparing British and Pakistani participants on a range of measures. These are described in Section 2.6.

2.3 Participants

The study recruited a sample of British and Pakistani adolescents from secondary schools, colleges and youth clubs in Peterborough. The inclusion criterion was students aged 16-18 years old who define their culture as either British or Pakistani. Exclusion criteria included: students aged under 16 years or over 18 years; students who did not define their culture as British or Pakistani; students who defined their culture as both British and Pakistani; and students who were unable to read English.

Statistical power analysis package G*Power 3 (Faul, Erdfelder, Lang, & Buchner, 2007) was used to calculate the proposed sample size for the study. Research conducted by Angermeyer and Matschinger (2005) indicated medium effect sizes in a study with an adult German population. A recent study conducted by Emmerton (2010) also calculated the sample size required for medium effects in a study with a British adolescent sample. Kirk

(1995) highlighted how the aim should be to detect minimal meaningful differences. Therefore a medium effect size was used in this study. Using a significance level at $p = .05$ and recommended power of .80, 78 British and 78 Pakistani participants were required.

2.4 Recruitment

Participants were recruited between January 2011 and May 2011. The researcher initially contacted the institutions (school or college) by telephone to discuss the study with Head of Sixth Form and Post-16 Co-ordinators. If they were not available, their email addresses were obtained. Letters were then sent out to these institutions outlining details of the study and asking them to contact the researcher if they were interested in taking part in the study (Appendix B). If further information was required the participant invitation letter (Appendix C) and a copy of the survey (Appendix D) was emailed to the institution. The institutions who agreed to support the research were asked to distribute the invitation letters to school students in Years 12 and 13 and to college students aged 16-18 years old. The letter outlined details of the study and invited those students who defined their culture as either British or Pakistani to participate in the study. Those students who expressed an interest in taking part were asked to visit the survey website and complete the questionnaires.

Due to only a small number of Pakistani participants being recruited via the institutions, a number of youth groups for the Pakistani community were approached by the researcher and invited to participate in the study. The researcher initially contacted facilitators of the youth groups by telephone to discuss the study with them. Their email addresses were obtained and a letter outlining details of the study was sent to them (Appendix E) along with the participant invitation letter and a copy of the survey. If the youth groups agreed to take part in the study, a convenient time was arranged with the facilitator to attend the groups in order recruit participants and complete the survey with them. The groups were

attended on a number of occasions by the researcher due to different youth attending each session. People who were known to the researcher from the local Pakistani community were also asked to distribute paper based copies of the survey to youth who met the inclusion criteria.

2.5 Ethical Considerations

Ethical approval was obtained from the University of East Anglia (UEA) Faculty of Health Ethics Committee (Appendix F).

An information sheet (Appendix G) was provided to participants on the first page of the survey. This outlined that consent was provided by completing and submitting the questionnaires, participating in the research was voluntary, and withdrawing from the study at any time was possible. It was stated that all data would be stored in a locked cupboard at UEA. Results from the questionnaires were anonymous and were entered into a password protected database. Only the researcher and her supervisor had access to the data. After the research was completed, the data would be kept for five years at UEA. It was not considered that participating in the study would cause any stress. However, if a participant became distressed, they were advised to withdraw from the study and speak to an adult and /or their GP. On the final page of the survey, participants were presented with a debrief sheet. This outlined the purpose of the study, included contact details of organisations that participants may wish to contact if they felt distressed or would like further information about mental health problems. The researcher's contact details were also provided. Participants who wanted to receive a summary of the findings and/or be entered into the prize draw with the opportunity to win £50 in High Street vouchers were asked to provide their email address. These were received and stored separately to the questionnaires to ensure anonymity. Once

the summary sheets had been sent out and the prize draw conducted, email addresses were destroyed.

2.6 Measures

2.6.1 Vignette describing a person with psychosis.

It was decided to focus on psychosis in this study as research which has compared attitudes towards different mental illness has shown that psychosis is considered to be one of the most stigmatised (e.g., Crisp et al., 2000; Griffiths et al., 2006). The vignette used was taken from a study conducted in Pakistan (Suhail, 2005) with participants aged 16-72 years. It is an adapted version of the original vignette used by Jorm et al. (1997) with western populations. The name of the person described in the vignette was changed to Sam, which was considered a popular name used in both western and non-western cultures and also across genders. The age of the person described in the vignette was also changed from 25 years to 17 years, which was considered to be more age appropriate and would therefore be considered to be a peer to participants. The vignette used in the study is presented below:

Sam is 17 and lives at home with his parents. Over the last six months he has stopped seeing his friends and has begun locking himself in his bedroom and refusing to eat with his family or to have a bath. His speech is sometimes incoherent and disorganised. His parents also hear him walking about his bedroom at night while they are in bed. Even though they know he is alone, they have heard him shouting and arguing as if someone else is in there. When they try to encourage him to do more things, he whispers that he won't leave home because the neighbour is spying on him.

After reading the vignette, participants were asked to complete a series of questionnaires (outlined below) relating to it. The vignette was used to measure stigma as

indexed by social distance (Research Question 1a), investigate the factors of perceived causal attributions of mental illness (Research Question 2), and in the identification and labelling of mental illness (Research Question 3) (Appendix H).

2.6.2 Labelling (Angermeyer, Buyantugs, Kenzine, & Matschinger 2004).

Using an open ended question, participants were asked how they would label the problem described in the vignette. Responses were coded into four categories: 4 = correct psychiatric diagnosis; 3 = other psychiatric illness; 2 = personal problem; 1 = other definitions of the problem depicted in the vignette. If multiple labels were suggested, the label coming closest to the correct psychiatric label was recorded. Additionally, 20% of the responses were coded by the researcher's supervisor as a measure of inter-rater reliability. The supervisor was blind to group membership. Inter-rater reliability for this study is discussed in Section 3.5.1.1. This method of measuring labelling was chosen as it was considered the most natural method of understanding how people categorise symptoms as opposed to labels being imposed upon them through the vignette description. It has been widely used in stigma research (e.g., Angermeyer & Matschinger, 2003a; Angermeyer et al., 2004; Hay, 2007). A similar question was also used by Emmerton (2010) with adolescents. This was used to investigate Research Question 3.

2.6.3 Social distance scale (Link, Cullen, Frank, & Woznaik, 1987; Adapted by Jorm & Wright, 2008).

The Social Distance Scale (Link et al., 1987) was used as a measure of stigma. This indicated participants' desire for social distance from the person described in the vignette. The scale includes seven items representing various social relationships and participants are asked to indicate to what extent they would, in the situation, accept the person described in the vignette. A four point Likert scale was used ranging from 1 (*definitely willing*) to 4

(*definitely not willing*). Higher scores represent a greater desire for social distance. The internal consistency of the scale is high (alpha = .92). This questionnaire is the most widely used and accepted measure of social distance and has been used in much of the stigma research with adults in western and non-western cultures (e.g., Angermeyer & Matschinger, 2005; Dietrich et al., 2003; Griffiths et al., 2006; Lauber et al., 2004).

The use of the Social Distance Scale (Link et al., 1997) is currently limited in research with adolescents. Modifications have been made to the scale by Jorm and Wright (2008) to make the scale more age appropriate. The modified five item scale has been used successfully in studies by Jorm and Wright (2008) and also by Emmerton (2010). Therefore the modified version was used in this study. This was used to investigate Research Question 1a (Appendix I).

2.6.4 Perception of causes questionnaire (Angermeyer, Beck, & Matschinger, 2003).

Participants' attributions of the causes of psychosis depicted in the vignette were assessed by 11 items. Two items referred to each of the following: psychosocial stress (life event and stress at work), conditions of socialisation (a broken home and lack of parental affection), biological causes (brain disease and heredity), intrapsychic causes (lack of will power and unconscious conflict) and deviant behaviour (alcohol abuse and immoral life style). Supernatural causes were also added to these items, as some studies conducted in non-western cultures (e.g., Adewuya & Makanjuola, 2008; Gureje et al., 2005) found widespread belief in supernatural factors as the cause of mental illness. Therefore, this will also be explored in the current study. Participants were asked to respond on a five point Likert scale ranging from 1 (*very unlikely)* to 5 (*very likely*). A high score indicates that participants consider the potential cause to be relevant. The various items are treated on an individual

basis and no psychometric properties have been generated for the questionnaire. (M.C. Angermeyer, personal communication, July 19. 2010). However this measure has been used in various studies (e.g., Angermeyer & Matschinger, 2005; Dietrich et al., 2003; Hay, 2007). A similar type of questioning has been used by Norman and Malla (1983) with adolescents. This was used to explore Research Question 2 (Appendix J).

2.6.5 Devaluation–discrimination measure (Link, Cullen, Struening, Shrout, & Dohrenwend, 1989).

The Devaluation-Discrimination measure (Link et al., 1989) lists 12 statements that respondents are asked to rate on a six point Likert scale ranging from 1 (*strongly agree*) to 6 (*strongly disagree*). This has been designed to assess the extent to which respondents believe that most people will devalue or discriminate against a person with a history of psychiatric illness. A high score indicates a belief that individuals with mental illness will be devalued and discriminated against. The measure has adequate internal consistency (alpha = .76) and has been used in several studies in western and non-western cultures (e.g., Kurihara et al., 2000; Schomerus et al., 2006). This was used as a measure of stigmatising attitudes and behaviour (Research Question 1b). A similar measure developed by Griffiths et al. (2004) has been used with adolescents to measure depression stigma (Appendix K).

2.6.6 Level of contact report (Holmes, Corrigan, Williams, Canar, & Kubiak, 1999).

The Level of Contact Report (Holmes et al., 1999) lists 12 situations in which intimacy between participants and a person with severe mental illness varies. Participants are asked to tick all the situations that they have experienced in their lifetime. The index for contact is the rank score of the most intimate situation indicated by the participant. Reliability of the measure has been assessed by asking mental health professionals to rank the situations

in order of intimacy and calculating the inter-rater reliability. This was found to be .83. This measure has been used in several studies (e.g., Corrigan, Edwards, et al., 2001; Corrigan, Green, et al., 2001) and modified age-appropriate versions have been used with adolescents (Corrigan et al., 2005; Emmerton, 2010). The modified version used by Emmerton (2010) was used in this study. Here two questions from the original measure have been removed and one question reworded to make it more age appropriate. Additionally, as in the studies by Jorm and Wright (2008) and Emmerton (2010), terms associated with mental illness were replaced with 'a problem like Sam's' This measure was used to investigate Research Question 4 (Appendix L).

2.6.7 Twenty statements test (TST; Kuhn & McPartland, 1954).

To ensure that cultural differences in individualism-collectivism exist between British and Pakistani adolescents living in the UK, the Twenty Statements Test (TST) was used. Participants were asked to provide 10 statements in response to the question 'Who am I?' The responses provided were coded into categories of the independent-interdependent dichotomy. Responses were coded as independent if they refer to personal qualities, attitudes, beliefs or behaviours that are not related to other people, and as interdependent if they refer to collective self-cognitions (e.g., I am Asian) or cognitions pertaining to interdependence, friendships, relationships or to the sensitivity of others. Participants received a score which was the ratio of independent cognitions divided by the number of cognitions provided. The measure has been used in previous research (e.g., Bochner, 1994; Ma & Schoeneman, 1997) and found to have high inter-rater reliability, criterion validity and good test-re-test reliability, content validity and concurrent validity (Kuhn & McPartland, 1954) (Appendix M).

2.6.8 Demographics.

Participants were asked to record their culture, gender, age, religion, length of time in the UK, and any personal experience of mental illness. They were also asked to rate on a scale of 1 (*not at all*) to 10 (*extremely*) how British they perceived themselves and how much they enjoyed living in Britain (Appendix N).

2.7 Procedure

The survey was piloted on three adolescents (aged 16, 17 and 18). This was to ensure that the measures were easy to understand and that there were no confusing questions.

Participants were initially presented with the information sheet (online and paper based survey). It was clearly outlined to participants that by completing and submitting (online survey) or returning (paper based survey) the questionnaires, they were consenting to the research.

Measures were presented in the survey in following order: 1) Vignette; 2) Labelling (Angermeyer et al., 2004); 3) Social Distance Scale (Link et al., 1987); 4) Perception of Causes Questionnaire (Angermeyer, Beck, et al., 2003; 5) Devaluation-Discrimination Measure Link et al., 1989); 6) Level of Contact Report (Holmes et al., 1999); 7) Twenty Statements Test (Kuhn & McPartland, 1954); 8) Demographics. The survey took approximately 15-20 minutes to complete.

Once participants had completed the questionnaires, they were presented with a debrief sheet as the final page of the survey (Appendix O). Once participants completing the online survey had submitted their responses, they were redirected to another webpage. Here they had the opportunity to request a summary of the findings and/or be entered into the prize draw with the opportunity to win £50 in High Street vouchers. If participants wanted to

receive a summary sheet and/or be entered into the prize draw, they were asked to provide their email address. If participants completing the paper based survey wanted to receive a summary sheet and/or be entered into the prize draw they were asked to provide their email address in the section provided and tear of the slip and return it with their completed questionnaire.

When the questionnaires were received by the researcher, they were scored, entered into a database and statistical analyses were computed.

2.8 Plan of Analysis

Data analyses were conducted using statistical tests for independent group designs. These are outlined below. Statistical Package for the Social Sciences (SPSS) version 16 was used. Each variable was screened and checked that assumptions were met for parametric analyses. If the data were not normally distributed, the data were transformed. If the data could not be transformed non-parametric analyses were used. This is discussed in further detail in Chapter 3. For all analyses, the independent variable was culture: British versus Pakistani.

For Research Question 1: An Independent t-test was planned for Research Question 1a as the dependent variables were the mean scores on the Social Distance Scale (Link et al., 1987). An Independent t-test was also planned for Research Question 1b. The dependent variables were the mean scores on the Devaluation-Discrimination measure (Link et al., 1989).

For Research Question 2: A multivariate analysis of variance (MANOVA) was planned. The dependent variables were the mean scores for each of the perceived causes of mental illness. These included brain disease, heredity, life event, stress at work, supernatural

causes, a broken home, lack of parental affection, unconscious conflict, lack of will power, alcohol abuse and immoral life style.

For Research Question 3: A Pearson's Chi Square test was planned to explore whether there were any differences between British and Pakistani participants in the coding categories for the identification and labelling of mental illness.

For Research Question 4: A Mann Whitney U test was planned. The dependent variables were the mean rank contact score for each group.

CHAPTER 3

3. Results

3.1 Chapter Overview

The chapter begins with a description of the sample composition. The process by which the data were examined to ascertain whether they met assumptions for parametric analyses is then outlined. This is followed by a description of the demographic information for each cultural group. Preliminary analyses are presented before moving on to examine each research question in turn. Lastly, a summary of the key findings is presented.

3.2 Sample Composition

Ten schools and two colleges in Peterborough were invited to participate in the study. Of these, only two schools and the colleges responded and agreed to allow their students to take part in the study. All British participants were recruited in this way.

Due to only a small number (30%) of Pakistani participants being recruited from schools and colleges, three youth clubs for the Pakistani community in Peterborough were approached by the researcher and invited to participate in the study. All three agreed to take part. People who were known to the researcher from the local Pakistani community were also asked to distribute paper based copies of the survey to youth who met the inclusion criteria. The majority of Pakistani participants were recruited in this way.

In total, 154 participants completed the survey (111 online and 43 paper based). However, 54 participants were excluded from the study (43 online and 11 paper based).Of those participants that were excluded, 7 identified their culture as Pakistani, 4 identified their culture as British and Pakistani (exclusion criteria), and 43 were unknown. The main reason for excluding participants who completed the online survey was that they withdrew from the study partway through the questionnaires. The reason why they withdrew is unknown. There

seemed to be three main places were participants did withdraw: before the first question (labelling) (65.9%), the Devaluation-Discrimination measure (Link et al., 1989) (12.2%) and the TST (9.8%). Two participants were also excluded due to providing invalid responses on the TST. Reasons for excluding participants who completed the paper based survey were: incomplete data being provided (63.6%) and participants identifying their culture as both British and Pakistani (36.4%). Therefore the total number of participants eligible to participate in the study was 100.

3.3 Testing Assumptions for Parametric Analyses

The data were tested for how well they met assumptions for parametric analyses. Findings for each of the measures used in the study are outlined in Section 3.5.1, where we discuss each questionnaire in turn. The demographic variables of age, length of time in UK, how British the participants perceived themselves and how much participants enjoyed living in Britain were also examined to ensure that assumptions for parametric analyses were met.

The frequency distributions of scores for each of the demographic variables were examined for British and Pakistani participants independently. The values of skewness and kurtosis were also inspected. Kolmogorov-Smirnov (K-S) tests were also conducted for each group. The data for each of the variables were found not to be normally distributed for both cultural groups. To ensure homogeneity of variances in the data for British and Pakistani participants, Levene's Tests for Equality of Variances were conducted. These were found to be significant for the variables of interest, indicating that both cultural groups had similar variances. The data were transformed in a number of different ways, but the K-S tests produced significant results for each transformation, indicating that the data were still not normally distributed. All findings are presented in Appendix P.

As assumptions were not met for parametric analyses, non parametric analyses were conducted to examine whether there are any cultural differences in the demographic variables.

3.4 Demographics

Fifty-four (22 male) British participants took part in the study. The mean age for British participants was 17.11 years ($SD = 0.72$). Forty-six (19 male) Pakistani participants took part in the study. The mean age for Pakistani participants was 16.87 years ($SD = 0.83$). No significant differences were found in gender between the two groups, χ^2 (1) = .00, $p = 1.00$, or age, $U = 1.03$ $Z = -1.55$, $p =. 15$.

The mean length of time in the UK for British participants was 16.48 years ($SD = 2.34$). The mean length of time in the UK for Pakistani participants was 15.70 years ($SD = 3.05$). A significant difference was found between the two groups, $U = 939.00$ $Z = -2.19$, $p = .03$, with British participants reporting a longer length of time in the UK than Pakistani participants.

Participants' responses for Religion fell into three groups; Christian (British = 21, Pakistani = 0), Muslim (British = 4, Pakistani = 46) and No Religion (British = 29, Pakistani = 0). A significant difference was found to exist, χ^2 (2) = 85.19, $p < .001$, with the majority of British participants reporting their religion as Christian or No Religion, and all Pakistani participants reporting their religion as Muslim.

Sixty-eight participants reported having no personal experience of mental illness. Participants who did report having experience of mental illness were asked to specify: Self, Family Member, Friend or Other. As assumptions were not met for a Pearson's Chi Square test due to a number of cells not having expected frequencies greater than 5 (Field, 2009), the

data were coded into 2 categories: participants who reported having no personal experience of mental illness (British = 38, Pakistani = 30) and participants who reported having personal experience of mental illness (British = 16, Pakistani = 16). No significant differences were found between the groups, χ^2 (1) = .30, p = .67. This indicates that there are no cultural differences in personal experience of mental illness.

In terms of how British the participants perceived themselves to be, British participants had a mean score of 7.69 (SD = 2.25) and Pakistani participants had a mean score of 7.61 (SD = 1.68). No significant differences were found between the two groups, U = 1109.50, Z = -.93, p =. 36. This suggests that there is no difference in how British the participants in both cultural groups perceived themselves. With regards to how much participants enjoy living in Britain, British participants had a mean score of 6.69 (SD = 1.83) and Pakistani participants had a mean score of 8.09 (SD = 1.76). A significant difference was found to exist between the two groups, U = 701.00, Z = -3.79, p < .001, with Pakistani participants reporting enjoying living in Britain more than British participants.

3.5 Preliminary Analyses

3.5.1 Measures.

3.5.1.1 Labelling (Angermeyer et al., 2004).

Responses on the labelling measure were initially coded into 4 categories: correct psychiatric diagnosis, other psychiatric illness/psychiatric illness unspecified, personal problem or other definition of the problem. However, analyses to check assumptions for a Pearson's Chi Square test revealed that the expected frequencies for the personal problem category were less than 5 (Field, 2009). Therefore 3 coding categories were used: 3 = correct psychiatric diagnosis, 2 = other psychiatric illness/psychiatric illness unspecified and 1 =

other definition of the problem. The responses given by British and Pakistani participants to the labelling question and their respective coding categories are provided in Appendix Q. Twenty randomly selected responses from the whole sample were independently coded by the researcher's supervisor, allowing inter-rater reliability to be calculated. This was found to be 90% agreement and Kappa coefficient was found to be good (= .82).

Table 2 shows the descriptive statistics for British and Pakistani participants' responses on measures used in the study.

Table 2.

Descriptive Statistics for Responses on Measures used in the Study

	British				Pakistani			
Measure	Mean (*SD*)	Min-Max	Skewness (*SE*)	Kurtosis (*SE*)	Mean (*SD*)	Min-Max	Skewness (*SE*)	Kurtosis (*SE*)
Social Distance Scale	12.94 (2.41)	6-18	-1.02 (0.33)	1.62 (0.64)	13.74 (3.03)	5-20	-0.30 (0.35)	0.96 (0.69)
Devaluation-Discrimination Measure	39.80 (5.68)	23-50	-0.85 (0.33)	1.09 (0.64)	39.70 (6.91)	15-55	-0.79 (0.35)	2.96 (0.69)
Twenty Statements Test	0.86 (0.15)	0.40-1.00	-1.23 (0.33)	1.00 (0.64)	0.74 (0.21)	0.30-1.00	- 0.57 (0.35)	-0.47 (0.69)

3.5.1.2 Social distance scale (Link et al., 1987).

Table 2 shows the descriptive statistics for British and Pakistani participants' responses on the Social Distance Scale (Link et al., 1987). This was found to have good internal reliability (α = .83). The distributions of scores on the measure were inspected separately for each cultural group. This was to ensure that assumptions for parametric analyses had been met (Appendix R). The values for skewness and kurtosis were also examined (Table 2). K-S tests were also conducted for each cultural group; British: D (54) = .16, p < .001, and Pakistani: D (46) = .10, p = .20. These indicated that the data were not normally distributed for British participants, but were normally distributed for Pakistani participants. Levene's Test for Equality of Variances was conducted to ensure homogeneity of variance on the social distance scores for British and Pakistani participants. This was found to be non significant, F (1, 98) = 2.12, p = .15, indicating that both groups had similar variances.

The data were transformed in several ways, but were still found not to be normally distributed for both groups (Appendix R). As the assumptions for parametric analyses were violated, non parametric analyses were conducted with data from the social distance scores.

3.5.1.3 Devaluation-discrimination measure (Link et al., 1989).

Table 2 shows the descriptive statistics for British and Pakistani participants' responses on the Devaluation-Discrimination Measure (Link et al., 1989). The internal reliability of the measure was alpha = .46. Analysis indicated that taking out any items would not considerably increase the reliability of the scale; therefore the Devaluation-Discrimination measure (Link et al., 1989) was used with all 12 items indicated.

Analyses were conducted to check that parametric assumptions were met for Devaluation-Discrimination scores. The frequency distributions of British and Pakistani participants' scores on the measure (Appendix R) and the values for skewness and kurtosis were examined (Table 2). K-S tests were also carried out for each group; British: D (54) = .10, p = .20 and Pakistani: D (46) = .12, p = .12. The K-S tests indicated that the data were normally distributed for both British participants and Pakistani participants. To ensure homogeneity of variance of scores on the measure between British and Pakistani participants, Levene's Test for Equality of Variances was conducted. This was non-significant, F (1, 98) = .59, p = .44, suggesting that both groups were similar in their variances. As assumptions were met for parametric analyses, these were conducted on the Devaluation-Discrimination data.

3.5.1.4 Perception of causes questionnaire (Angermeyer, Beck, et al., 2003).

Descriptive statistics for British and Pakistani participants' responses on the Perception of Causes Questionnaire (Angermeyer, Beck, et al., 2003) are outlined in Table 3. The 11 items on the questionnaire were found to have acceptable internal reliability (α = .68).

Table 3.

Descriptive Statistics for Responses on the Perception of Causes Questionnaire (Angermeyer, Beck, et al., 2003)

	British				Pakistani			
Perceived Cause	Mean *(SD)*	Min-Max	Skewness *(SE)*	Kurtosis *(SE)*	Mean *(SD)*	Min-Max	Skewness *(SE)*	Kurtosis *(SE)*
Brain Disease	2.61 (1.16)	1-5	0.37 (0.33)	-0.78 (0.64)	2.85 (1.26)	1-5	0.02 (0.35)	-0.90 (0.69)
Heredity	2.72 (1.20)	1-5	0.23 (0.33)	-0.93 (0.64)	3.00 (0.18)	1-5	-0.38 (0.35)	-0.72 (0.69)
Life Event	4.31 (0.72)	2-5	-1.19 (0.33)	2.16 (0.64)	3.93 (1.12)	1-5	-1.05 (0.35)	0.47 (0.69)

Stress at Work	3.56	1-5	-0.91	0.09	3.46	1-5	-0.65	0.43
	(1.08)		(0.33)	(0.64)	(1.03)		(0.35)	(0.69)
Supernatural Causes	1.52	1-4	1.34	0.78	2.67	1-5	0.21	-1.17
	(0.79)		(0.33)	(0.64)	(1.40)		(0.35)	(0.69)
A Broken Home	3.43	1-5	-0.97	0.52	3.13	1-5	-0.16	-0.72
	(0.96)		(0.33)	(0.64)	(1.09)		(0.35)	(0.69)
Lack of Parental Affection	3.31	1-5	-0.37	-1.13	3.33	1-5	-0.25	-0.62
	(1.04)		(0.33)	(0.64)	(1.08)		(0.35)	(0.69)
Unconscious Conflict	3.52	1-5	-0.32	-0.31	3.22	1-5	-0.59	0.04
	(0.97)		(0.33)	(0.64)	(1.03)		(0.35)	(0.69)
Lack of Will Power	2.76	1-5	0.17	-1.15	2.96	1-5	-0.09	-0.79

	(1.24)		(0.33)	(0.64)	(1.17)		(0.35)	(0.69)
Alcohol Abuse	3.13	1-5	-0.27	-0.56	3.35	1-5	-0.56	-0.30
	(1.01)		(0.33)	(0.64)	(1.18)		(0.35)	(0.69)
Immoral Life Style	2.54	1-5	-0.16	-1.22	3.52	1-5	-0.32	0.03
	(1.24)		(0.33)	(0.64)	(1.03)		(0.35)	(0.69)

Analyses were conducted to ensure that each item on the questionnaire met assumptions for parametric analyses for British and Pakistani participants. Histograms were inspected (Appendix R). Additionally the values for skewness and kurtosis were examined for each item for both cultural groups (Table 3). K-S tests were also conducted (Appendix R). These revealed that the distribution of scores for each item for British and Pakistani participants were significantly different from a normal distribution. Levene's Test for Equality of Variances was carried out (Appendix R) to ensure that the variances of scores on each of the items were homogonous for both cultural groups. Variances were found to equal for both groups on all except 3 items: life event, supernatural causes and immoral life style.

The data were transformed in a number of different ways, but the K-S tests produced significant results for each transformation (Appendix R). This suggests that the data were still not normally distributed. Despite these violations, as there is no non parametric alternative of MANOVA, it was decided to still conduct a MANOVA on the data. Non parametric post hoc analyse were conducted where significant differences were indicated.

3.5.1.5 Level of contact report (Holmes et al., 1999).

Descriptive statistics for British and Pakistani participants' responses on the Level of Contact Report (Holmes et al., 1999) are shown in Table 4. The median was 5 for both cultural groups. This corresponds to a level of contact of 'I have observed a person who has a problem like Sam's'. The most common response for British participants was 4, which was 'I have watched a TV documentary about a person who has a problem like Sam's'. The most common response for Pakistani participants was 7, which was 'A friend of my family has a problem like Sam's'. The index scores for British and Pakistani participants are provided in Appendix S.

Table 4.

Descriptive Statistics for Responses on the Level of Contact Report (Holmes et al., 1999)

British			Pakistani		
Median	Mode	Min-Max	Median	Mode	Min-Max
5	4	1-10	5	7	1-8

3.5.1.6 Twenty statements test (Kuhn & McPartland, 1954).

Twenty participant's responses were randomly selected and independently coded by the researcher's supervisor to assess inter-rater reliability. This was found to be 97% agreement and the Kappa coefficient was found to be good (.90). This also allowed the TST (Kuhn & McPartland, 1954) to be scored by an individual from a collectivistic culture (researcher) and an individualistic culture (supervisor).

Analyses were carried out to check that the data from British and Pakistani participants met assumptions for parametric analyses. The distributions of scores for both cultural groups were examined (Appendix R). The values for skewness and kurtosis were also inspected (Table 2). K-S tests were also conducted for both groups: British: $D (54) = .24$, $p <$ .001 and Pakistani $D (46) = .13$, $p = .05$. These indicated that the data were not normally distributed for British participants, but were normally distributed for Pakistani participants. To ensure homogeneity of variance in data across cultural groups, Levene's Test for Equality of Variances was conducted. This was significant, $F (1, 98) = 4.88$, $p =. 03$, suggesting that that the variances were significantly different. The data were transformed in a number of

different ways; however the K-S tests revealed significant results for each transformation (Appendix R).

As assumptions for parametric analyses were violated, non parametric analyses were used. A Mann Whitney U test revealed that there was a significant difference between the two groups in terms of the independent self ratio, $U = 831.00$, $Z = -2.90$, $p < .001$ with British participants construing themselves as more independent.

3.6 Research Questions

Each research question is now stated and examined in turn.

3.6.1 Research question 1.

Is there a difference in stigma towards mental illness between British and Pakistani adolescents living in the UK?

a) *As indexed by social distance*

b) *As indexed by devaluation and discrimination*

3.6.1.1 Social distance.

A Mann Whitney U test was used to investigate if there was a significant difference in social distance scores between the two groups. No significant difference was found to exist between British and Pakistani participants scores, $U = 1031.50$, $Z = -1.47$, $p = .14$, $r = .15$. This suggests that there is no difference in the amount of social distance British and Pakistani participants' desire from individuals with a mental illness.

3.6.1.2 Devaluation-discrimination.

An Independent t-test was used to investigate whether there was a difference between British and Pakistani participants' scores on the Devaluation-Discrimination measure (Link et al., 1989). No significant difference was found between the two groups, t (98) = .08, p = .94, d =.02. This suggests that there is no difference in how much British and Pakistani participants believe that most people will devalue and discriminate against a person with mental illness.

3.6.2 Summary of findings for research question 1.

No significant differences were found between the scores of British and Pakistani participants on the Social Distance Scale (Link et al., 1987) or the Devaluation-Discrimination measure (Link et al., 1989). This suggests that there is no difference in stigma towards mental illness between the two cultural groups.

3.6.3 Research question 2.

Is there a difference in perceived causal attributions of mental illness between British and Pakistani adolescents living in the UK?

A MANOVA was conducted to see if there were any differences in perceived causal attributions of mental illness between British and Pakistani participants. A significant effect of culture was found, Λ = .64, F (11, 88) = 4.49, $p < .001$, partial η^2 = .36. Significant differences were seen for the following causes: life event, supernatural causes and immoral life style. This suggests that the two cultural groups differed in how much they perceived these items to cause mental illness.

Non parametric post-hoc analyses were conducted to ensure that significant differences exist between British and Pakistani participants on these items. Three separate Mann Whitney U tests were conducted and a Bonferroni correction was applied. The criterion for significance was set at .02. These revealed that there was no significant difference between participants' scores on perceiving life event as a potential cause, $U = 1042.00$, $Z = -1.50$, $p = .13$, $r = .15$. However significant differences were found for supernatural causes, $U = 654.00$, $Z = -4.36$, $p < .001$, $r = .44$ and immoral life style, $U = 710.50$, $Z = -3.79$, $p < .001$, $r = .38$, with more Pakistani participants perceiving these to be potential causes of mental illness than British participants.

3.6.4 Summary of findings for research question 2.

A significant difference was found between British and Pakistani participants on perceived causal attributions of mental illness for supernatural causes and immoral lifestyle. More Pakistani participants considered that these items may cause mental illness compared to British participants. No significant differences were found to exist between the other potential causes.

3.6.5 Research question 3.

Is there a difference in the identification and labelling of mental illness between British and Pakistani adolescents living in the UK?

A Pearson's Chi Square test was conducted to investigate whether there were any significant differences between British and Pakistani participants in the identification and labelling of mental illness. Analyses indicated that culture had a significant impact on labelling, $\chi^2 (2) = 21.77$, $p < .001$. Seventy-eight percent of British participants identified the correct psychiatric label for Sam's problem (psychosis or schizophrenia) compared to 33% of

Pakistani participants. Forty-one percent of Pakistani participants provided another definition compared to only 9% of British participants. Thirteen percent of British participants and 26% of Pakistani participants identified Sam's problem as 'mental illness' or another psychiatric illness (e.g., anxiety or depression). These results indicate that British participants were more able to differentiate between mental disorders and correctly identify Sam had schizophrenia/psychosis compared to Pakistani participants.

3.6.6 Summary of findings for research question 3.

Analyses indicated that culture had a significant impact on the identification and labelling of mental illness. More British participants identified the correct psychiatric diagnosis (psychosis or schizophrenia) for Sam's problem described in the vignette compared to Pakistani participants. Pakistani participants were more likely to provide another definition for the problem or identify it as 'mental illness', compared to British participants.

3.6.7 Research question 4.

Is there a difference in the level of contact British and Pakistani adolescents living in the UK have with individuals' with mental illness?

In order to investigate if there was any difference between British and Pakistani participants' scores on the Level of Contact Report (Holmes et al., 1999), a Mann Whitney U test was conducted. This showed that there was no significant differences between the two groups, $U = 1193.00$, $Z = -.34$, $p = .73$, $r = .03$. This indicates that both cultural groups were similar in terms of their level of contact with people with mental illness.

A Spearman's Rho correlation was also conducted to see if there was a relationship between level of contact and scores on the Social Distance Scale (Link et al., 1987) (Appendix T). Previous literature indicates that as the level of contact with people with

mental illness increases, social distance scores decrease. The variables were found to be negatively correlated, but not significant, r_s = -.13, p = .20. This indicates that there is no significant relationship between participants' scores on the Level of Contact Report (Holmes et al., 1999) and the Social Distance Scale (Link et al., 1987).

3.6.8 Summary of findings for research question 4.

There was no significant difference between the level of contact British and Pakistani participants had with individuals' with mental illness.

3.7 Summary of the Results

The TST (Kuhn & McPartland, 1954) indicated that there were differences in individualism and collectivism between the two groups. British participants were found to hold a more independent view of self, whilst Pakistani participants were found to hold a more interdependent view of self. No significant differences were found between British and Pakistani participants on either of the stigma measures (Social Distance Scale and Devaluation-Discrimination measure). Significant differences were found between the two groups on perceived causal attributions of mental illness, with Pakistani participants indicating that supernatural causes and immoral life style were more likely to cause mental illness than did British participants. Culture was also found to have a significant impact on labelling; the majority of British participants identified the correct psychiatric label for Sam's problem compared to only a third of Pakistani participants. Level of contact with people with mental illness was also seen not to differ between British and Pakistani participants.

3.**8 Supplementary Analyses**

3.8.1 Twenty statements test (Kuhn & McPartland, 1954) and key variables.

As no significant differences were found between British and Pakistani adolescents on the stigma scales, additional analyses were conducted to examine the relationship between the TST (Kuhn & McPartland, 1954) and key variables investigated in the study (Appendix T). Significant relationships were only found between the TST and the Level of Contact Report (Holmes et al., 1999), $r_s = -.21$, $p = .04$, and the TST and supernatural causes, $r_s = -.25$, $p = .01$. Therefore it is likely that other factors (e.g., religion) that were not explored in the current study may have influenced the findings.

3.8.2 Social distance scale (Link et al., 1987) and key variables.

Spearman's Rho correlations were conducted to see if there was a relationship between the Social Distance Scale (Link et al., 1987) and key variables investigated in the study. Analyses were conducted for the adolescent group as a whole, as well for each cultural group separately (Appendix T). Significant correlations were found between the Social Distance Scale and labelling (for British participants only), $r_s = .28$, $p = .04$, and between the Social Distance Scale and supernatural causes (for Pakistani participants only), $r_s = .30$, $p = .04$.

CHAPTER 4

4. Discussion

4.1 Chapter Overview

The chapter begins with a summary of the findings in relation to the research questions outlined in the introduction. This is followed by a critical evaluation of the study. This centres on the sample, the focus of the study, recruitment, the survey and measures chosen for use. Theoretical and clinical implications of the study are then discussed. This leads onto a discussion of directions for future research.

4.2 Summary of Findings

Each research question is firstly considered in relation to the findings of the current study.

4.2.1 Research question 1.

Is there a difference in stigma towards mental illness between British and Pakistani adolescents living in the UK?

c) *As indexed by social distance*

d) *As indexed by devaluation and discrimination*

The results indicated that there was no difference in the amount of social distance that British and Pakistani adolescents desire from people with mental illness. Additionally, no difference was found in how much British and Pakistani adolescents believed that most people will devalue and discriminate against a person with mental illness. Overall, no differences were found in stigma towards mental illness between British and Pakistani adolescents living in the UK.

These findings do not support the work of Griffiths et al. (2006), Kurihara et al. (2000) or Schomerus et al. (2000), who found differences in attitudes towards mental illness between individuals from individualistic and collectivistic cultures. These differences may be explained by the studies being conducted across countries. Therefore participants may have been more strongly influenced by the culture of their respective countries.

The results do not support the findings of Whaley (1997) and Anglin et al. (2006), who concluded that participants from different cultural groups living in America differed in their attitudes towards individuals with mental illness. However, both of these studies focused on differences in the perceptions of dangerousness between groups. This was not explored in the current study. The findings also differ from those of Hsu et al. (2008), who found that Chinese Americans had greater stigmatising attitudes compared to Caucasian Americans.

The findings partly support the work of Marie and Miles (2007) who found no differences in social distance scores between Maori (collectivistic culture) and non-Maori (Individualistic culture) participants living in New Zealand. The findings from our study may also be explained in terms of acculturation. As outlined in Section 1.6.3, Redfield et al. (1936, p.149) have defined acculturation as "Those phenomena which result when groups of individuals having different cultures come into continuous first-hand contact with subsequent changes in the original patterns of either or both groups". In practice acculturation tends to induce more change in one of the groups than in the other (Berry, 1990). Therefore it is possible that Pakistani participants may have become acculturated to British culture. The majority of Pakistani participants (80%) reported being born and growing up in the UK, and are therefore likely to have been influenced by British beliefs, values and behaviours.

Berry (1997) highlighted that cultural groups and their individual members must deal with the issue of how to acculturate. He proposed strategies relating to two major issues that

are usually worked out by the groups and individuals in their daily encounters with each other. These issues are:

Cultural Maintenance: This is the extent to which cultural identity and characteristics are considered important by the different groups and their individual members, and their maintenance strived for.

Contact and Participation: This is the extent to which the different groups and their individual members should become involved in other cultural groups, or remain primarily among themselves.

When these two issues are considered simultaneously, a conceptual framework is generated which posits four acculturation strategies (Berry, 1997). This is outlined in Table 5. The strategies are considered from the point of non-dominant groups.

Table 5.

Conceptual Framework of Acculturation Strategies (Berry, 1997)

		Is it considered to be of value to maintain one's identity and characteristics?	
		YES	NO
Is it considered to be of value to maintain relationships with larger society?	YES	INTEGRATION	ASSIMILATION
	NO	SEPARATION/ SEGREGATION	MARGINALISATION

Berry (1997) suggested that when individuals do not wish to seek their cultural identity and seek close interactions with other cultures, and adopt the cultural values, norms and traditions of the new society, the Assimilation strategy is defined. In contrast, when individuals place high value on holding onto their original culture, and at the same time avoid interaction with members of the new society, the Separation strategy is defined. With the Integration strategy, there is an interest in maintaining one's culture in daily interactions with other groups. Here, a degree of cultural integrity maintained, whilst simultaneously seeking to participate as an integral part of the larger society. The Marginalisation strategy arises when there is little possibility or lack of interest in cultural maintenance (often for reasons of enforced cultural loss), as well as little interest in having relations with others (often for reasons of exclusion or discrimination). Groups and individuals may hold varying attitudes towards these four ways of acculturating, and their behaviours may vary correspondingly (Berry, 1997).

Individuals do not always have the freedom to choose how they want to acculturate (Berry, 1974). Often dominant groups may enforce certain forms of acculturation, and then other terms need to be used. Berry (1997) reported how sometimes people choose the Separation strategy, but when they are required to do so by the dominant society, the situation is one of Segregation. In the case of Marginalisation, people rarely chose such an option; usually they become marginalised as a result of attempts of forced assimilation combined with forced exclusion (segregation), therefore no other term seems appropriate except Marginalisation (Berry, 1974). Relating Berry's (1997) acculturation framework to the findings of the current study, it is possible that the Pakistani adolescents may have become integrated with the British adolescents, and thus no significant differences were seen in the attitudes towards people with mental illness between the groups. British and Pakistani adolescents were found to differ on the dimension of individualism and collectivism. This

may be a representation of the Pakistani group's cultural identity. However as no measure of acculturation was used in the current study, this cannot be confirmed. Further studies are needed to explore the impact of acculturation on attitudes towards mental illness. More research is needed to develop a better understanding of the psychological processes of individualism and collectivism that influence behaviour. It may be that individuals from collectivistic cultures feel a sense of duty to other members of their group and may be more accepting of people with mental illness. Comparably, individuals from individualistic cultures are viewed as being independent, therefore people with mental illness may not be so stigmatised. The impact of acculturation on the dimension should also be explored. These psychological processes are also likely to be influenced by the different cultural beliefs and values held by the two groups. As these were not examined in the current study, additional studies are needed to explore the impact of these factors on the dimension of individualism and collectivism.

4.2.2 Research question 2.

Is there a difference in perceived causal attributions of mental illness between British and Pakistani adolescents living in the UK?

The findings showed that British and Pakistani adolescents differed in their perceived causal attributions of mental illness. Pakistani adolescents considered that supernatural causes and immoral life style (deviant behaviour) were more likely to cause mental illness compared to British adolescents.

Gureje et al. (2005) and Adewuya and Makanjuola (2005, 2008) found widespread belief in supernatural factors as the cause of mental illness in their studies conducted in Nigeria. This was associated with high levels social distance. In contrast, Chong et al. (2007) found that only a small number of participants in Singapore attributed mental illness to

supernatural causes. Our findings are consistent with those of Gureje et al. (2005) and Adewuya and Makanjuola (2005, 2008) for Pakistani participants. Supplementary analyses revealed that there was a positive correlation between perceived supernatural causes and social distance for the Pakistani group (Appendix T). This suggests that the more Pakistani participants endorsed supernatural beliefs as the cause of mental illness, the greater the desire for social distance.

The observed differences in perceived causal attributions of mental illness are likely to be influenced by the religious beliefs of participants in the two groups (Cinnirella & Loewenthal, 1999). All Pakistani participants who took part in the study reported being Muslim. Religious beliefs are an important part of an individual's culture. They provide a sense of order and help individuals understand what may otherwise seem overwhelming and unpredictable world (Carone & Barone, 2001).

Central to the Islamic faith is the belief in one God (Allah), his prophets, holy books and the unseen (Al-ghayb, i.e., angels, Jinn, heaven and hell) (Khalifa, Hardie, Latif, Jamil & Walker, 2011). According to Islamic belief, Jinn are creatures who conceal themselves from humans, so they can see us, but cannot be seen (Al-Ashqar, 2003). There is a strong belief amongst Muslims that Jinn are capable of causing physical and mental harm to human beings (i.e., through possession, causing ill health and misfortune) (Dein, Alexander, & Napier, 2008; Khalifa & Hardie, 2005). Numerous references are also made to magic in the Islamic literature, including the Quran (Khalifa et al., 2011). The Quran also makes references to the 'evil eye'. There is a belief among some Muslims that some people can show the 'evil eye' which relates to the power of envy to inflict harm on others either mentally or physically (Dein et al., 2008). Therefore it appears that supernatural factors (e.g., Jinn, black magic and the evil eye) are widely accepted phenomena amongst the Muslim community. There is

widespread belief amongst the Muslim community that such factors can cause both physical and mental health problems (Khalifa et al., 2011). This is supported by the findings of the current study and numerous other researches (e.g., Karim, Saeed, Rana, Mubbasher, & Jenkins, 2004; Tabassum et al., 2000; Zafar et al., 2008). These studies also found that participants perceived that the treatment for mental illness was in the hands of religious leaders and faith healers. This represents a real divergence from the medical models of mental illness in western cultures (Tabassum et al., 2000).

Pakistani participants in the current study also perceived immoral life style to be a cause of mental illness. Gureje et al. (2005) also reported that in their study 1 in 10 participants perceived mental illness to be a divine punishment. This implies that people are in some way responsible for their illness (Gureje et al., 2005). Zafar et al. (2008) reported that nearly 16% of participants in their study perceived mental illness to be a punishment for sins that had been committed. Therefore it is possible that Pakistani participants in the current study may also perceive mental illness to be a punishment from God, due to an individual's immoral life style. Similar findings were reported by Cinnirella and Loewenthal (1999); in their study Muslim participants reported that mental illness (e.g., depression and schizophrenia) was caused by lack of faith and failure to pray regularly. Therefore it appears that there is a widespread belief within the Muslim community that mental illness is a punishment from God for not adhering to the morals and principles of the Islamic faith. Such beliefs may affect perceptions of honour (izzat) and reflected shame that have been outlined in Section 1.7.

Perceived causal attributions of mental illness are also likely to be reinforced by the way mental health is constructed and construed within the family system. Most people in Pakistan and the Pakistani community within the UK live in a joint family system in which

people tend to adhere to ancient and traditional concepts of diseases. Therefore it is likely that explanations of causes of mental illness (e.g., supernatural causes and immoral life style) are passed down from generation to generation (Zafar et al., 2008).

The conceptualisations of mental illness by different cultural groups are also known as explanatory models of mental illness (Kleinman, 1980). Different explanatory models can lead to stigmatising attitudes towards people with mental illness (Kleinman & Cohen, 1997). This is highlighted by the positive correlation found between endorsing supernatural causes for mental illness and the increased desire for social distance for Pakistani participants. These variables were not found to be significantly correlated for British participants.

As outlined in section 3.8.1, the TST (Kuhn & McPartland, 1954) was found to be significantly correlated with supernatural beliefs about the cause of mental illness. This suggests that participants who viewed the self as being more interdependent were more likely to perceive supernatural beliefs as a cause of mental illness. Further studies are needed to develop a better understanding of how the dimension of individualism and collectivism relates to beliefs about the causation of mental illness. This finding is also likely to be influenced by additional factors such as religion, as explained above.

4.2.3 Research question 3.

Is there a difference in the identification and labelling of mental illness between British and Pakistani adolescents living in the UK?

The results showed that British and Pakistani adolescents differed in their identification and labelling of mental illness, with British adolescents more able to identify the correct diagnosis for the problem described in the vignette. These findings differ from those of Marie and Miles (2007) who found no differences in problem identification

(labelling) between participants from individualistic and collectivistic cultures in New Zealand. However, the findings for Pakistani participants are similar to those from research conducted by Sorsdahl and Stein (2010) with the South African community. They found that participants were unable to correctly identify common mental disorders presented in vignettes. Although 26% of Pakistani participants in the current study were able to recognise the problem described in the vignette as mental illness. Similar findings have also been reported by Zafar et al. (2008). They found that only 30% of participants in Pakistan recognised a vignette describing a person with schizophrenia as mental illness.

Kleinman (1987) argued that culture shapes the understanding and presentation of all illness. Consequently psychiatric disorders are likely to differ across western and non-western cultures in a variety of ways. At times, what is regarded as illness by western medicine may carry a different meaning in non-western cultures (Littlewood, 1990). Littlewood (1990) highlighted how anthropologists' have frequently questioned the appropriateness of psychiatric terms used in western cultures (e.g., schizophrenia) and whether these can be presumed in another culture. Therefore it may be that Pakistani participants in the current study are using a different label, word or diagnosis to describe the same phenomena (e.g., psychosis) as British adolescents.

The differences in labelling of mental illness are also likely to be influenced by the way mental illness is spoken about within families, and language used within the system. Jorm and Wright (2008) found specific associations between the pattern of attitudes in young people and in their parents. It is likely that these conversations are also influenced by cultural and religious beliefs about mental illness. The impact of the differences in labelling on treatment sought for mental illness is in need of further research.

Hayward (1999) suggested that culture shapes the way in which mental illness is expressed and that individuals' manifest and express their illness according to what is appropriate and allowed in their particular culture. Lloyd (1986) reported that individuals' from non-western countries had higher rates of somatic representation of psychological symptoms, as a reflection of their cultural approach to understanding mental illness. Therefore it appears that not only is mental illness likely to be identified and labelled differently in non-western cultures (as has been shown in the current study), it is also likely that symptoms will be reported differently, possibly with more of a somatic presentation. Although this was not explored in the current study, this finding has been supported by several studies conducted with non-western cultures in the UK (e.g., McCarthy, 1988; Mumford, 1993; Tabassum et al., 2000).

4.2.4 Research question 4.

Is there a difference in the level of contact British and Pakistani adolescents living in the UK have with individuals' with mental illness?

Results indicated that both British and Pakistani participants had similar levels of contact with individuals with mental illness. This finding may also be explained by acculturation; if Pakistani participants have become integrated with British participants, both groups would be expected to have the same amount of contact with individuals with mental illness. Analyses revealed that there was no significant relationship between familiarity with mental illness (as measured by level of contact) and social distance scores, although these were found to be in the expected direction (Appendix T). The results do not support the findings of Adewuya and Makanjuola (2008), Esterberg et al. (2008), Jorm and Wright (2008) or Marie and Miles (2007) who reported that individuals who were more familiar with mental illness had less desire for social distance.

Supplementary analyses (Appendix T) revealed a negative correlation between the TST (Kuhn & McPartland, 1954) and scores on the Level of Contact Report (Holmes et al., 1999). This suggests that individuals who construe an independent sense of self have less contact with people with mental illness. This may be explained by the dimension of individualism and collectivism; in collectivistic cultures, the self is viewed as being interdependent, and therefore it is likely that individuals within these groups know one another and also their family members. Thus individuals' from collectivistic cultures are more likely to come into contact with people with mental illness than are individuals' from individualistic cultures. Additionally, it may be that individuals from collectivistic cultures feel a sense of duty towards other group members and are therefore more willing to help people with mental illness, and thus have more contact with them. In comparison people from independent cultures who have a mental illness may be expected to get along on their own and have less contact with other individuals. This again highlights how the psychological processes that influence differences in individualism and collectivism are in need of further research.

4.3 Critical Evaluation of the Study

In this section, the strengths and limitations of the study are discussed.

4.3.1 Sample.

This study concentrates on the attitudes of British and Pakistani adolescents living in Peterborough. Strengths of this study include its cross-cultural design. The researcher is unaware of any studies published in the UK examining differences in stigma across cultural groups. Similar numbers of participants were recruited from each cultural group. Although British and Pakistani participants were not matched on gender or age, no significant differences were found between the groups on these variables.

As participants for the study were recruited from Peterborough using a convenience sample, these findings cannot be considered representative of British and Pakistani adolescents living in the UK. Ideally a large national study using random sampling techniques would be employed. However, this was not within the scope of the current research.

4.3.2 Focus of the study.

This study only focused on psychosis. Therefore the findings cannot be generalised to any other mental illness or mental illness in general. However, it was considered important to study different mental disorders separately in order to gain a full understanding of the impact of stigma. Thus, it could also be considered a strength that the current study examined one specific mental illness. Additionally, the study only focuses on individual discrimination. There are also other forms of discrimination (institutional and internalised) experienced by people with mental illness that have been identified by Pincus (1966).

4.3.3 Recruitment.

Only two out of ten schools agreed to take part in the study, reflecting a low response rate. It is possible that this is due to the recruitment strategy of the researcher, who approached schools by telephone and letter. Arranging meetings with Head of Sixth Forms and Post 16 Co-ordinators to discuss the research might have been more beneficial, especially with the schools with a large number of Pakistani students.

Ideally, recruiting more Pakistani adolescents from schools and colleges would have allowed a more representative sample to be obtained. The exact reason as to why other schools did not respond is not known. Discussion with one Head of Sixth Form highlighted concerns about parental consent for students to take part in the study not being requested.

Therefore it might have been helpful to send out an information sheet to parents outlining details of the study (where schools agreed to take part).

Due to the small number of Pakistani participants recruited through schools and colleges, a paper based copy of the survey was developed. Having this from the start of the study for both British and Pakistani students might have allowed a larger sample to be recruited.

4.3.4 Survey.

The survey was designed to be easy to understand and quick to complete. It followed a similar format to the interview conducted by Jorm and Wright (2008) with adolescents; an initial vignette was presented followed by a series of questions to assess recognition of the problem, stigmatising attitudes and perceived stigma. Perceived causal attributions of the problem and familiarity with mental illness were also explored in the current study. Comparable formats have also been used successfully by Emmerton (2010) and by Hay (2007) with adults.

4.3.5 Measures.

4.3.5.1 Vignette.

A vignette was used to describe a person who had symptoms of psychosis. This design was used as it presented participants with a stimulus rather than simply asking participants about 'psychosis'. However, the terms 'psychosis' or 'mental illness' were not explicitly mentioned in the vignette, which might have meant that the impact on participants was not as prominent.

The vignette was chosen because it has been successfully used in studies with both western and non-western populations (e.g., Jorm et al., 1997; Suhail, 2005). The name used in the vignette was also considered popular in both cultures and could also be used across

genders. The age of the person described in the vignette was also changed to ensure that it was age-appropriate. Although vignettes provide a vivid description of an individual with a mental illness, they cannot represent real life. The behaviour described might have had less salience for participants, thus compromising the ecological validity of the findings (Angermeyer, Matschinger, et al., 2003).

A number of British and Pakistani participants labelled the problem presented in the vignette as something other than mental illness (e.g., brain injury). Due to the design of the survey, this meant that participants continued answering questions relating to this rather than psychosis or mental illness in general. Conducting separate analyses for British and Pakistani participants who correctly identified and labelled the problem might have allowed a more accurate interpretation of stigmatising attitudes in the two groups. However due to the size of the respective samples (British = 42, Pakistani = 15) and issues of power, this was not considered appropriate in the current study.

4.3.5.2 Social distance scale (Link et al., 1987).

The use of the Social Distance Scale (Link et al., 1987) with adolescents is currently limited and there is no preferred measure for use with this age group (Emmerton, 2010). Therefore a modified version of the scale (Jorm & Wright, 2008) was used in the study. One of the limitations of social distancing scales is the bias of social desirability. Participants may merely deny social distance responses due to not wanting to appear ignorant (Link et al., 2004). In an attempt the overcome this in the current study, the Devaluation-Discrimination measure (Link et al., 1989) was also used. This looks at the extent to which individuals believe that most people will devalue and discriminate against a person with mental illness. Furthermore, the Social Distance Scale only measures behavioural intentions, not how people actually behave. The measure is attitudinal in nature and not behavioural (Angermeyer &

Matschinger, 2003b). Therefore we do not know how participants would behave in real life. However, the results of a meta-analysis (Kraus, 1995) showed that there was a substantial association between attitudes and behaviour.

An alternative measure is the scale developed by Schulze, Richter-Werling, Matschinger and Angermeyer (2003). This was used with adolescents to assess social distance towards a person with schizophrenia. However, as this scale has only been used in the study conducted by Schulze et al. (2003), a more widely used measure was chosen for the current study.

4.3.5.3 Perception of causes questionnaire (Angermeyer et al., 2003).

As not many studies have investigated perceived causal attributions of mental illness in adolescents, there does not appear to be a preferred measure to use with this age group. Therefore the Perception of Causes Questionnaire (Angermeyer et al., 2003) was used. This has been used in several studies with adults (e.g., Angermeyer & Matschinger, 2005; Dietrich et al., 2003; Hay, 2007). It is possible that that some of the items on the questionnaire might have been ambiguous for adolescents (e.g., unconscious conflict and immoral lifestyle). Norman and Malla (1983) provided definitions after each causal item in their study, in an attempt to clarify meaning for adolescents. A similar technique might have proved useful in the current study. A further limitation of this measure was that it had forced choices as to the potential causes of the problem described in the vignette, thus possibly limiting participants' responses. Having an option for 'other' and allowing participants to include additional items that they considered significant might have provided greater insight into adolescents' perceived causal attributions of mental illness. It is also important to consider that the variances of scores for the items of life event, supernatural causes and immoral life style were not homogenous for both cultural groups. This might have impacted on the current findings.

4.3.5.4 Devaluation-discrimination measure (Link et al., 1989).

This is another measure that has been used in several adult studies in both western and non-western cultures (e.g., Kurihara et al., 2000; Schomerus et al., 2006). It is designed to assess the extent to which participants believe that most people will devalue or discriminate against a person with a history of psychiatric illness. One of the advantages of using this measure is that it avoids socially desirable responses. However the measure frequently uses the terms 'mental patient' and 'mental hospital' which could be argued have negative connotations and thus possibly influencing stigmatising attitudes. It should also be noted that the measure was found to have low internal reliability in the current study.

4.3.5.5 Level of contact report (Holmes et al., 1999).

This measure was chosen as it is the most widely used measure of familiarity with mental illness (Emmerton, 2010). However, some of the statements are quite similar (e.g., I have observed a person who has a problem like Sam's; I have observed a person who I think may have had a problem like Sam's) and may have been confusing for participants. The development of a more age-appropriate measure is required.

4.3.5.6 Twenty statements test (Kuhn & McPartland, 1954).

The TST (Kuhn & McPartland, 1954) was a clear and straightforward measure both to administer and to score, which allowed cultural differences in individualism and collectivism between participants to be examined. Inter-rater reliability for the measure in the current study was also found to be good.

4.4 Implications of the Results

4.4.1 Theoretical implications.

The findings will now be considered in relation to the theories outlined in Chapter One. The study was informed by theories of stigma, culture and adolescence.

In terms of theories relating to stigma, the study was particularly interested in the social psychological model (e.g., Angermeyer & Matschinger, 2003a; Corrigan, Edwards, et al., 2001) as this model is one of the most widely used models in stigma research in western cultures (Section1.2.2). This is based on both attribution and labelling theories and therefore these frameworks will not be discussed separately. The model takes into account different experiences (e.g., labelling of mental illness, familiarity with mental illness and demographic variables) and examines how these impact on perceptions of mental illness (e.g., dangerousness, dependency, causal attributions and prognosis). These perceptions are considered to influence affect if confronted with a person with mental illness (e.g., fear, anger, lack of understanding, pity and desire to help). The emotional reactions of people finally impact on social distance.

The aim of the current study was not to test the social psychological model overall, but to explore whether there were cultural differences between British and Pakistani adolescents in the separate components that make up the model. We examined labelling of mental illness (experience), familiarity of mental illness (experience), perceived causal attributions (perceptions) and social distance (response).

Differences were observed between British and Pakistani adolescents in labelling of mental illness and perceived causal attributions of mental illness. No significant difference was found in familiarity of mental illness. The factors of perceived dangerousness, perceived dependency and demographic variables were not examined in the current study. Due to the differences found between British and Pakistani participants in the separate components of the model (i.e., labelling and perceived causal attributions), it may be that the overall model may not be applicable to non-western cultures in the same way as it is to western cultures.

Correlations were conducted between the components (i.e., labelling, familiarity and perceived causal attributions) and social distance in order to examine relationships within the model. These correlations are presented in Appendix T. In support of the model, a positive correlation was found between labelling and social distance for British participants. In contrast, a significant relationship was not found between labelling and social distance for Pakistani participants. Therefore it appears that labelling of mental illness does not influence stigmatising attitudes towards people with mental illness in non-western cultures. This finding differs from studies conducted in western cultures and therefore does not support the model. No significant correlations were found between familiarity and social distance for either British or Pakistani participants. These findings do not support the model. Therefore it appears that 'Experience' (i.e., labelling of mental illness and familiarity of mental illness) does not influence social distance in Pakistani participants, and that the social psychological model might need to be modified with regard to this particular component with non-western cultures. However, as outlined above demographic variables and their relationship with social distance were not explored in the current study and should be further investigated.

Additionally, as no significant correlation was found for British participants, it may be that familiarity with mental illness may not influence social distance responses in adolescents in the same way that has been demonstrated in adult stigma studies. This is another area for future research. Therefore the model may also require modification in its application with adolescents. A positive correlation was found between perceived causal attributions (i.e., supernatural causes) and social distance for Pakistani participants, providing some support for the stigma model. In contrast, no significant correlation was found between perceived causal attributions and social distance for British participants, and thus does not support the model. Therefore it appears that this component of the model may be applicable to non-western

cultures and is need of additional exploration in western cultures. Again, it may be that the model requires further modification with adolescents.

These findings not only highlight the importance of examining whether there are cultural differences between the separate components of the social psychological model (e.g., Angermeyer & Matschinger, 2003a; Corrigan, Edwards, et al., 2001), but also whether cultural differences exist in how separate components within the model relate to each other. Overall the results from both western cultures (British participants) and non-western cultures (Pakistani participants) provide support for some components of the social psychological model and simultaneously do not provide support for other components. It appears that the model may require modification in order to be more applicable to non-western cultures and also adolescent populations.

This study has focused predominantly on the relationship between the components of 'Experience' and 'Response' in the social psychological model (e.g., Angermeyer & Matschinger, 2003a; Corrigan, Edwards, et al., 2001). Additional studies are needed in order to examine the relationship between 'Experience' and other components of the model (e.g., Perception and Affect). This will help to develop a better understanding of the process of stigma formation in both non-western cultures and adolescent populations. Mesquita and Walker (2003) highlight that emotions vary across cultures. Cultural differences have been reported in the prevalent, modal, and normative emotional responses (Mesquita, Frijda, & Scherer, 1997). Therefore it is important to explore whether there are cultural differences in 'Affect' towards mental illness, and how this impacts on the relationships between the separate components of the model.

Limited empirical studies conducted in western cultures have tested Corrigan's (2000) attribution model. Some of the findings from the literature review outlined in Section

1.6.2.5 were linked to the model. Although, it was not possible to validate the model due to the methodological flaws of the studies reviewed. The current study did not examine the different components of the model. Therefore applicability of Corrigan's (2000) attribution model in non-western cultures remains unclear. As the model implies a linear relationship between the components of signalling event (person with mental illness), attributions (controllability of symptoms and responsibility for illness), affective responses (pity or anger) and behavioural reactions (helping or punishing behaviour), it therefore does not consider additional factors that may influence the relationship between these components (e.g., familiarity with mental illness). Consequently the social psychological model (e.g., Angermeyer & Matschinger, 2003a; Corrigan, Edwards, et al., 2001) is preferred.

The main culture theory examined in the study was the dimension of individualism and collectivism (Markus & Kitayama, 1991, 1994, 2010). This is the degree to which individuals are supposed to look after themselves or to remain integrated into groups, usually around the family (Hofstede, 2001). Within cultures that value autonomy and independence (typically western cultures) the self is represented as an independent, self-contained, autonomous individual. This type of relationship is labelled independent (Markus & Kitayama, 1991, 1994, 2010). Within cultures that value relatedness and interdependence (typically non-western cultures) the self is seen as being connected to the surrounding social context and relatedness is emphasised. This type of relationship is labelled interdependent (Markus & Kitayama, 1991, 1994, 2010). The dimension of individualism and collectivism affects individuals' thinking, feeling and behaviours (Arrindell, 2003). Therefore differences observed between groups may be explained by what it means to be a self in a particular social context (Markus and Kitayama, 1991, 1994, 2010).

British and Pakistani adolescents were found to differ on this dimension as represented by their different construals of independent and interdependent self-schemas. However findings of the study have been explained by additional factors other than this dimension. The similar attitudes observed by both groups towards people with mental illness may be explained by acculturation, and the differences observed between the groups in perceived causal attributions may be explained by religion and the religious beliefs of participants in the two groups. Given that limited cultural models and theories have been used to guide empirical studies, the dimension of individualism and collectivism could potentially be a useful theoretical framework to consider in future studies examining cross-cultural differences. However, its application appears to be limited in the current study.

Further consideration needs to be given to how the factors of acculturation and religion may influence the dimension of individualism and collectivism, and how these psychological processes may influence the separate components of the social psychological model (e.g., Angermeyer & Matschinger, 2003a; Corrigan, Edwards, et al., 2001) and the model overall.

In terms of theories of adolescence, Erikson (1968) and Marcia (1980) highlight how during adolescence young people start to identify with the norms and values of society and culture, find their own identity and experience a shared identity with others. Therefore the similar attitudes of British and Pakistani adolescents towards people with mental illness observed in the study may be attributed to their quest for identity and peer acceptance. It may be that British and Pakistani adolescents wish to be perceived as being alike and forming part of the same in-group, thus having a shared identity and strengthening the in-group/out-group divide (Heatherton, Kleck, Hebl, & Hull, 2000). Results from the study appear to support theories relating to adolescence.

In summary, the results from western cultures (British participants) and non-western cultures (Pakistani participants) provide support for some components of the social psychological model (e.g., Angermeyer & Matschinger, 2003a; Corrigan, Edwards, et al., 2001). However, findings from the study for both cultures also do not provide support for other components of the model. Although the dimension of individualism and collectivism appears limited in explaining findings from the current study, it may be a useful theoretical framework for future research examining cross-cultural differences. Additional research is needed investigating how this dimension may influence other components of the social psychological model that were not examined in the current study. Lastly findings from the study support that adolescence appears to be a crucial stage in the development of attitudes (Adelson, 1975; Kohlberg, 1976) and a period when individuals develop a sense of identity and experience a shared identity with others (Erikson, 1968; Marcia, 1980). Therefore it seems an important time to investigate attitudes towards people with mental illness. This will help to inform theories and models relating to stigma. The current study suggests that the social psychological model (e.g., Angermeyer & Matschinger, 2003a; Corrigan, Edwards, et al., 2001) is a useful starting framework in understanding stigma and the process of stigma formation in both non-western cultures and also adolescents. Although it appears that the model may require modification in order to be made more applicable to both populations. Further research is needed testing the overall model with adults and adolescents from non-western cultures and adolescents from western cultures.

4.4.2 Clinical implications.

The differences observed in perceived causal attributions of mental illness between British and Pakistani adolescents highlight the importance of understanding how mental illness is constructed and construed in Pakistani culture. One way that this may be done is

through mental health practitioners liaising closely with local imams. This will help clinicians to learn more about the cultural values and religious beliefs of the Pakistani community, and understand as to why they may endorse different attributions as to the causes of mental illness. As discussed in Section 4.2.2, the perceived causal attributions are likely to influence treatment sought for mental illness. Working together with religious leaders may also be helpful in engaging clients from the Pakistani community with local mental health services, as well as in understanding the needs of individuals from the Pakistani community who present with such difficulties.

In terms of the differences between the two groups in the labelling and identification of mental illness, it may be that Pakistani adolescents are using a different label, word or diagnosis to describe the same phenomena (e.g., mental illness) as British adolescents. This is in line with social constructionist perspectives. Summerfield (2004) highlights how societal attitudes shape individuals' understanding of illness and shape the vocabulary they use to describe it, whether or how they seek help, and expectations of recovery. Therefore it is essential that we develop a better understanding of these cultural differences and how the Pakistani community conceptualises mental illness. This is particularly important in order to avoid misdiagnosis. The identification and labelling of mental illness are likely to influence treatment sought for mental illness. Thus, it is important that mental health practitioners are aware of these differences. This will allow us to develop services and therapies that are more culturally sensitive and meet the needs of the Pakistani community.

Although no significant relationships were found between level of contact and social distance scores for either British or Pakistani participants, analyses revealed that the results were in the expected direction (as level of contact increased, desire for social distance decreased). This suggests that increasing the amount of contact adolescents have with people

with mental illness may be helpful in reducing stigma. This may be done through schools and colleges; with individuals with mental illness coming to tell 'their story', and having the opportunity to interact with the young people. This would also allow empowerment of service users.

Overall the findings demonstrate that there is still a need to increase our understanding of stigma in adolescents. Adolescents' views towards mental illness need to be better understood. This will help to design appropriate anti-stigma campaigns. As the findings indicate that there are no significant differences in stigmatising attitudes between British and Pakistani adolescents, anti-stigma programmes could be designed to target the adolescent population as a whole group. However, cultural and religious factors need to be incorporated into these. The findings from the current study suggest that Pakistani adolescents have become acculturated to British culture. Therefore it may be expected that Pakistani adolescents with mental illness would access mental health services as readily as British adolescents. This was not explored in the current study. However, as mentioned above, treatment sought for mental illness is likely to be influenced by the factors of perceived causal attributions and the labelling and identification of mental illness. In light of the current findings, differences may be observed. This is an area for future research.

4.5 Future Research

As this is one of the first studies examining cross-cultural differences in stigmatising attitudes in adolescents in the UK, it is clear that future research is needed in the area. Further studies are needed to test the applicability of existing stigma frameworks such as labelling (e.g., Scheff, 1966) and attribution theories (e.g., Corrigan, 2000) with Pakistani adolescents living in the UK. Additionally, the social psychological model (e.g., Angermeyer & Matschinger, 2003a; Corrigan, Edwards, et al., 2001) does not appear to have been tested

with adults or adolescents from non-western cultures, and limited studies (e.g., Emmerton, 2010) have been conducted with adolescents from western cultures. This would allow us to develop a better understanding of the relationships between separate components of the model (e.g., experience, perception, affect) and whether cultural differences exist, and of the processes involved in stigma formation in adolescents and non-western cultures.

More studies investigating factors that predict social distance in adolescents (from western and non-western cultures) would be beneficial. Conducting supplementary regression analyses in the current study was considered. However, due to the small sample sizes and issues of power this was not deemed appropriate. Further research is needed to examine the role of familiarity with mental illness in adolescents as this continues to remain unclear.

Developing a better understanding of the beliefs of the adolescent Pakistani community towards mental illness is essential. Qualitative research exploring how mental illness is talked about in families would provide valuable insight as to how adolescents' attitudes towards mental illness are formed. This would also help develop a better understanding of different cultural and religious beliefs that may influence these. Limited studies have been conducted in the UK exploring the attitudes and beliefs of non- western cultures towards mental illness and these have predominantly focused on adult populations (e.g., Cinnirella & Loewenthal; Tabassum et al., 2000). Additional studies are also needed to explore the impact of the differences observed in the identification and labelling of mental illness on treatment sought for such difficulties.

Further experimental research may help develop a better understanding of the influence of culture on attitudes and behaviour. Studies could be conducted priming different aspects of self (independent versus interdependent) in participants and examining how individuals respond to vignettes of people with mental illness. As highlighted, a better

understanding of the dimension of individualism and collectivism and the different

psychological processes that guide behaviour are required. Research investigating the impact

of acculturation and religion on this dimension is also needed.

4.6 Final Conclusions

The aim of the study was to contribute to the existing literature in the area of stigma by

investigating whether there were any cultural differences in stigmatising attitudes towards

mental illness between British and Pakistani adolescents living in the UK. Results indicated

that the two groups differed on the dimension of individualism and collectivism, represented

by the different construals of independent and interdependent self-schemas. No significant

differences were found to exist in stigma between the two cultural groups. However,

significant differences were found in perceived causal attributions of mental illness, with

Pakistani adolescents indicating that supernatural causes and immoral life style were more

likely to cause mental illness compared to British adolescents. Culture was also found to have

a significant impact on labelling; the majority of British adolescents identified the correct

psychiatric label for the problem described in the vignette compared to only a third of

Pakistani adolescents. Level of contact with people with mental illness did not differ between

the two groups. The similar attitudes observed between British and Pakistani adolescents

towards people with mental illness were considered to be due to acculturation. Differences in

causal attributions and labelling of mental illness between the two groups may be attributed

to different cultural and religious beliefs and the way mental illness is constructed and

construed within non-western families. The study demonstrates the need for mental health

practitioners to be more aware of these cultural differences. This would allow the provision

of culturally sensitive services and therapies. The findings also highlight the need to develop

a better understanding of stigma in adolescents, in order to develop appropriate anti-stigma

campaigns. Further research needs to be conducted both with non-western cultures and with adolescents. Future studies should test the applicability of existing stigma models and theories used with adults in western countries with non-western and adolescent populations. The dimension of individualism and collectivism could potentially be a useful theoretical framework to consider in future cross-cultural research; however its application appears to be limited in the current study. The social psychological model (e.g., Angermeyer & Matschinger, 2003a; Corrigan, Edwards, et al., 2001) appears to be a useful starting framework that could be used to aid our understanding of the process of stigma formation in both non-western cultures and adolescents. Although the model may require modification in order to be made more applicable to both populations.

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Appendix A: Summary of Studies Selected for Literature Review

Table A1

Summary of Studies Investigating Attitudes Towards Mental Illness in Non-Western Cultures (Ordered by Publication Date)

Study	Where study conducted and level of individualism of country	Design	Participants and sampling	Main factors and illness investigated	Data collection and measures	Main findings
1. Whaley (1997)	America - 91	Cross-cultural group comparison	Adults (*N* = 1,468) White (82%), African American (10%) Hispanic (4%), Pacific Islander (1.5%) American Indian (1%) Cluster sampling	General mental illness	Telephone survey: Perceived dangerousness and Level of Contact (Link & Cullen, 1986)	All cultural groups perceived people with mental illness to be more dangerous than did White American. High level of contact with mental illness was negatively correlated with perceived dangerous.
2. Kurihara, Kato, Sakamoto, Reverger, Kitamura & (2000)	Indonesia – 14 Japan – 46	Cross-country comparison	Adults matched for age, education, gender and occupation. Bali (*n* = 77) Tokyo (*n*= 66)	Schizophrenia Depression OCD	Self-report questionnaire: Devaluation-Discrimination measure (Link et al., 1989)	Balinese participants had lower scores on the Devaluation-Discrimination measure.

3. Dietrich, Beck, Bujantus, Kenzine, Matschinger, & Angermeyer (2003)	Germany – 67 Russia – 39 Mongolia – (Not Known)	Cross-country comparison	Adults Germany *(n* = 5025) Russia *(n* = 745) Mongolia *(n* = 950) Three stage random sampling procedure	Causal beliefs Schizophrenia Depression	Fully structured interview: Vignette, Perception of Causes Questionnaire (Angermeyer et al., 2004) and Social Distance Scale (Link et al., 1987)	Participants in all three countries attributed schizophrenia and depression to psychosocial causes. This was associated with less social distance
4. Taskin, Seyfe Sen, Aydemir, Murat Demet, Ozman & Icelli, (2003).	Turkey – 37	Correlational	Adults *(N* = 208) Convenience sample	Labelling Schizophrenia	Interview administered questionnaires: Vignette and 32 items rating attitudes (Sagduyu, Aker, Ozmen, Okel and Tamar, 2001)	Participants who recognised the vignette as mental illness (schizophrenia) desired increased social distance
5. Angermeyer, Buyantugs, Kenzine & Matschinger (2004)	Germany – 67 Russia – 39 Mongolia - (Not Known)	Cross-country comparison	Russia *(n* = 745) Mongolia *(n* = 952) Three stage random sampling procedure	Labelling Schizophrenia	Fully structured interview (Angermeyer & Matschinger, 2003a) Vignette, labelling question and Social Distance Scale (Link et al., 1987)	Labelling as mental illness was associated with a greater social distance in all three countries.

6. Ozmen, Ogel, Aker, Sagduyu, Tamar, Boratav (2004)	Turkey - 37	Correlational	Participants aged 15 years and over (*N* = 707) Three stage random sampling procedure	Labelling Depression	Interview administered questionnaire: Vignette and 32 items rating attitudes	Participants who perceived depression as a disease desired greater social distance.
7. Adewuya & Makanjuola (2005)	Nigeria – 20	Correlational	University students (*N* = 1,668) Multi-stage sampling technique	General mental illness	Semi-structured questionnaire: Social Distance Scale (Bogardus, 1925)	Social distance was seen to increase with the level of intimacy required in the relationship
8. Coker (2005)	Egypt – 38	Quantitative and Qualitative	Adults (*N* = 208)	General mental illness	Interviews: Vignettes and measure of social distance.	Vignette representing alcohol abuse elicited the greatest social distance. Qualitative analysis revealed that stigma should be understood within is cultural context
9. Gurjee, Lasebikan, Ephraim-Oluwanuga, Olly & Kola (2005)	Nigeria - 20	Group comparisons	Adults (*N*= 2,040) Stratified multistage probability sample	Causal attributions General mental illness	Self-report questionnaire: (Stuart & Arborleda-Florez., 2001)	Beliefs in supernatural causes were found to be common. This was associated with high social distance.

10. Bag, Yilmaz & Kirpinar (2005)	Turkey – 37	Correlational	Adults *(N = 856)* Three stage random sampling procedure	Causal attributions Schizophrenia	Interviews: Vignette and questionnaires put together by authors	Participants who endorsed biological factors as the cause of mental illness desired greater social distance.
11. Anglin, Link, & Phelan (2006)	America - 91	Cross-cultural group comparison	Adults (*N = 1,241*) African American (*n = 118*) Caucasian (*n = 913*) Random sampling	Schizophrenia Major depressive disorder	Telephone interviews: Vignette and questions put together by authors.	African American participants perceived individuals with mental illness as more dangerous.
12. Griffiths, Nakane, Christensen, Yshioka, Jorm, & Nakane (2006)	Australia - 90 Japan – 46	Cross-country comparison	Australia (*n* = 3998) Japan *(n* = 2000) Random sampling method	Schizophrenia Depression	Interviews: Vignette, Personal and Perceived Stigma Scale (Griffiths, Christensen, Jorm, Evan, & Groves, 2004) and Social Distance Scale (Link et al.1987)	Personal stigma and social distance was greater in Japan. Whereas perceived stigma was greater in Australia.

13. Schomerus, Matschinger, Kenzin, Breier, & Angermeyer (2006)	Russia –39 Slovakia – 52 Germany - 67	Cross-country comparison	Adults Russia (*n* = 745) Slovakia (*n* = 1000) Germany (*n* = 5025) Three stage random sampling procedure	Schizophrenia Depression	Fully structured interview (Angermeyer & Matschinger, 2003a): Devaluation-Discrimination measure (Link et al. 1989)	Participants in Germany had higher scores on the Devaluation-Discrimination measure. No significant differences were found between Russia and Slovakia
14. Jackson & Heatherington (2006)	Jamaica - 39	Group Comparisons	Students aged 10-18 years old (*N* = 615) Convenience sample	General mental illness	Classroom Study: Videotapes, the Opinions about Mental Illness Scale (Cohen & Struening, 1962) and social contact scale	Students desired more social contact with persons without mental illness.
15. Chong, Verma, Vaingankar, Chan, Wong & Heng (2007)	Singapore - 20	Correlational	Participants aged 15-69 years old (*N* = 2,632)	Causal attributions General mental illness	Interviews : Modified version of the Attitudes to Mental Illness Questionnaire (Glendinning, Buchman, & Rose, 2002)	Participants perceived people with mental illness to be dangerous. Malays were found to be the most tolerant of mental illness. Most participants considered stresses in life were a causative factor.

16. Jadhav, Littlewood, Ryder, Chakraborty, Jain, & Barua (2007)	India - 48	Group comparisons	Adults Rural (*n= 108*) Urban (*n = 183*) Convenience sample	General mental illness	Self-report questionnaire: Vignette & ethnographic questionnaire developed by the authors	Rural Indians had higher stigma scores compared to urban Indians.
17. Marie & Miles (2007)	New Zealand - 79	Cross-cultural group comparison	Adults Maori (*n= 90*) Non-Maori (*n=115*) Random sampling	Labelling Familiarity Depression	Self-report questionnaire: Vignette & Questionnaire developed by authors using Mental health literacy items (Jorm, 2000)	No differences were found between participants with regards to labelling, wellbeing or social distance. Participants more familiar with mental illness desired less social distance
18. Adewuya & Makanjuola (2008)	Nigeria - 20	Correlational	Adults (*N = 2078*) Multistage probability sample	Causal attributions Familiarity General mental illness	Semi-structured questionnaire: Questionnaire developed by the authors and Social Distance Scale (Bogardus, 1925)	Widespread beliefs about supernatural causes associated with high social distance. Individuals less familiar with mental illness also reported higher levels of social distance.

19. Esterberg, Compton, McGee, Shim, & Hochman (2008)	America - 91	Correlational	African American Adults (*N*= 111) Convenience sample	Familiarity Mental health knowledge Schizophrenia	Self-report questionnaires: Knowledge about Schizophrenia Test (Compton, Quintero,& Esterberg, 2007), Familiarity questions developed by the authors and Social Distance Scale (Bogardus, 1925)	Participants more familiar with mental illness had less desire for social distance. No relationship was found between knowledge of schizophrenia and social distance
20. Hsu, Wan , Chang, Summergrad, Tsang & Chen (2008)	America – 91 (China – 23)	Cross-cultural group comparison	Adults: Chinese Americans (*n*=50) Caucasian Americans (*n*= 50) Convenience sample	General mental illness	Self-report questionnaire: Social and Cultural Attitudes Questionnaire (SCAQ) developed by authors	Stigmatising attitudes were greater amongst Chinese Americans than Caucasian Americans.
21. Sorsdahl & Stein (2010)	South Africa - 65	Group comparisons	Adults (*N*= 1081) Convenience sample	Mental health knowledge	Self-report questionnaire (Hugo, Boshoff, Traut, Zungu-Dirwayi, & Stein, 2003)	Participants were unable to correctly identify common mental disorders. Schizophrenia was one of the most stigmatised vignettes.

Appendix B: Letter sent to Institutions

Dear

My Name is Shemin Mohamed and I am a Trainee Clinical Psychologist studying on the Doctoral Programme in Clinical Psychology at the University of East Anglia (UEA). As part of my course I am required to undertake a research project. I am writing to ask whether you would allow me to invite some of your students to participate in my research.

What is the research study about?

The research is investigating whether there are any cultural differences in stigma towards mental illness between British and Pakistani adolescents living in the UK. It will look at adolescents' attitudes, knowledge, experience and behaviour towards those with mental illness. The research will attempt to find this out by surveying a proportion of 16-18 year old students and asking them to read a short description of a person named Sam and then asking them to complete a number of questionnaires. The project could potentially impact on what material is covered in anti-stigma programmes in order for them to be more effective in decreasing stigma towards mental illness in our society.

What would the research involve for your institution?

For this study, I would like to recruit students who are aged 16-18 years and define their culture as British or Pakistani. Data collection is planned to take place between October 2010 and January 2011.Each person can freely choose whether to take part in the study. Participants will be asked to complete a survey which will be based online. The research procedure will consist of the following parts:

1. A short presentation will be given to all students aged between 16-18 years informing them that the study is interested in whether there are cultural differences in attitudes. (This is optional)

2. Letters will then be distributed to all these students. This will outline details of research study and invite those students who define their culture as either British or Pakistani to participate.

If a presentation is not requested, institutions will be asked to distribute the invitation letters to students aged between 16-18 years.

3. Those students who wish to take part in the study will be asked to visit the survey website (details will be provided on the invitation letter) and complete the online questionnaires. This will take approximately 20-25 minutes.

4. Once participants have completed the questionnaires, they will be asked to submit their responses and will be presented with a debrief sheet as the final page of the survey. Participants will then have the opportunity to request a summary of the findings and/or be entered into a prize draw with the opportunity with £50 High Street vouchers.

Confidentiality of responses

The questionnaires do not require students to give any information about them or the place that they were recruited. All data will be stored securely on a password protected computer database or in a locked filing cabinet. Only my supervisor and myself will have access to the data. Any reports for publication will not contain identifiable information of individual students. The results will be analysed using a computer package that will look at differences in the overall results between the British and Pakistani students.

Official review of the project

Supervision of the project will be provided by Dr Laura Jobson (Clinical Lecturer in Clinical Psychology) who is based at UEA. Ethical approval for the project has been obtained from the Faculty of Heath Ethics committee based at UEA.

What to do next

Thank you for taking time to read this information. If you are interested in more details about the study, I will be happy to arrange a meeting with you or a member of your team to discuss the project and have a look over the participant invitation letters, information sheets and questionnaires if you wish. If you are willing for your students to be asked to take part in the research study, please contact me on the details given below.

If you have any questions, please do not hesitate to contact me. Alternatively you could contact Dr Laura Jobson, whose contact details are also provided below.

Yours sincerely

Shemin Mohamed

Contact Details:

Researcher: Ms Shemin Mohamed

                Trainee Clinical Psychologist

Address: Doctoral Programme in Clinical Psychology

                School of Medicine, Health Policy and Practice

                University of East Anglia

                Norwich, Norfolk

                NR4 7TJ

Email: Shemin.Mohamed@uea.ac.uk

Supervisor: Dr Laura Jobson

Address: Doctoral Programme in Clinical Psychology

                School of Medicine, Health Policy and Practice

                University of East Anglia

                Norwich, Norfolk

                NR4 7TJ

Email: L.Jobson@uea.ac.uk

Appendix C: Participant Invitation Letter

University of East Anglia

GET INVOLVED AND HAVE THE OPPORTUNITY TO WIN £50!

Dear Student

I would like to invite you to participate in a research study that I am carrying out looking at whether there are any cultural differences in attitudes in students.

Therefore, if you are:

❖ aged 16-18 years

❖ define your culture as either British or Pakistani

❖ and would be interested in taking part in the study,

Please visit www.surveymonkey.com/s/culturestudy for further information and to complete the online survey.

It takes approximately 15 minutes and you will have the opportunity to be entered into a prize draw and **win £50 High Street vouchers!**

Please do not hesitate to contact me (details below) if you have any questions about the study or would like any further information.

Thank You

Ms Shemin Mohamed

Checkout the website:

www.surveymonkey.com/s/culturestudy

Contact Details:

Researcher: Ms Shemin Mohamed

              Trainee Clinical Psychologist

Address: Doctoral Programme in Clinical Psychology

              School of Medicine, Health Policy and Practice

              University of East Anglia

              Norwich, Norfolk

              NR4 7TJ

Email: Shemin.Mohamed@uea.ac.uk

Appendix D: Copy of Survey Sent to Institutions and Youth Clubs

UEA University of East Anglia

Information Sheet for Participants

Are there cultural differences in attitudes?

Researcher: Shemin Mohamed, Trainee Clinical Psychologist, University of East Anglia

Research Supervisor: Dr Laura Jobson, Clinical Lecturer, University of East Anglia

You are invited to take part in a survey*. This is organised by the University of East Anglia (UEA) as part of a Doctorate in Clinical Psychology to become a qualified Clinical Psychologist.

Please take time to read the following information carefully before you decide whether or not you wish to take part. It is important that you understand why the survey is being done and what it will involve.

What is the purpose of the survey?

The purpose of the survey is to examine the attitudes and general awareness of adolescents about a number of important community issues.

Why have I been invited to take part?

You have been invited to take part in the survey because you are aged 16-18 years old and have described yourself in terms of your culture* as either British or Pakistani. This study is interested in looking at whether there are cultural differences between these two groups.

What is involved in the survey?

If you decide to take part in this survey, you will be asked to read a short description of a person named Sam and then you will be asked to complete a number of questions about Sam. That's all there is to it! There are no right or wrong answers to these questions and it is

important that you answer the questions as honestly as you can. You will then be asked about yourself (e.g. gender, age, culture). When you have completed these, you have finished the survey. The last page of the survey is the debrief page*.which will give you an opportunity to read more about the survey. If you are interested in finding out more about the results of the survey and/or if you would like to be entered into the prize draw (where you could win £50 High Street vouchers), you will be asked to leave me your email address.

You have a choice if you want to take part

The survey is voluntary and it is up to you to decide if you would like to take part in it. If you decide to take part, and then change your mind, you are able to withdraw without giving a reason.

How long will it take?

The questions will take 20-25 minutes to complete. The questionnaires are all brief and people tend to move through them quite quickly.

What about confidentiality?

The survey is confidential and we will not ask you for your name at any time. This is to help you to be honest in your answers. In addition, the information will be coded in such a way that answers will be anonymous and stored in a way that is inaccessible to anyone other than me and my supervisor. Email addresses will be stored separately to the questionnaires to make sure your details are anonymous. These will be destroyed once the results of the survey have been sent out and the prize draw has taken place.

What are the possible benefits and risks in taking part in this study?

I cannot promise that the survey will benefit you personally, however taking part in the survey will help to develop a better understanding of people's attitudes and general awareness about a number of important community issues. It is not considered that there are any risks to taking part in this survey, however if it does cause you any stress, we advise that you stop completing the survey. If you feel particularly upset and in need of some help, we strongly encourage that you speak to an adult (e.g., teacher, school nurse/counsellor or parent) or visit your GP for advice or visit www.youngminds.org.uk for more information.

What will happen to my information if I choose to take part?

During the study, your information will be kept in a locked filing cabinet at the university. When the survey is finished, it will be kept for 5 years in a locked filing cabinet at the university. **As already mentioned, email addresses (if you would like a summary of the results and/or would like to be entered into the prize draw) will be stored separately from your answers on the questionnaires.**

What will happen to the results of the survey?

The results of the survey will be written up as a report which will form part of my requirements to become a qualified Clinical Psychologist It is also possible that the findings may also be presented at conferences* and/or written up as an article for a journal*.

Who is organising and funding the research?

The survey is being supervised by a tutor at the university, and is also being funded by the university. The Faculty of Health Ethics Committee* at the university has also approved the study.

What if I have a question or issue?

Should you have any questions or issues about the survey, please feel free to contact me using the contact details below.

Now what do I do?

If you would like to take part in the research, please go on and read the description of Sam and answer the questions after it.   Please only complete the questionnaires if you are aged 16-18 years old, are currently in school, college or university at the moment, and have described your culture as either British or Pakistani, you have read and understood the information sheet and you consent to taking part in the survey. Please note by sending the questionnaires back to me you are providing consent to participate.

If you are under 16 years or over 18 years, are not in education (e.g., school, college or university), do not define your culture as British or Pakistani, have not understood this information sheet or would not like to participate in this research, please select the "I do not consent" option.

Thank you for your time

Contact Details:

Researcher:	Ms Shemin Mohamed
	Trainee Clinical Psychologist
Address:	Doctoral Programme in Clinical Psychology
	School of Medicine, Health Policy and Practice
	University of East Anglia
	Norwich, Norfolk
	NR4 7TJ
Email:	Shemin.Mohamed@uea.ac.uk

Supervisor:	Dr Laura Jobson
Address:	Doctoral Programme in Clinical Psychology
	School of Medicine, Health Policy and Practice
	University of East Anglia
	Norwich, Norfolk
	NR4 7TJ
Email:	L.Jobson@uea.ac.uk

*Glossary of Terms:

Survey = Where people are asked to answer questions

Culture = The set of shared attitudes, values, and practices that a group of people have.

Debrief Page = The last page of the survey with important information about the survey

Conference = A place where psychologists meet and tell other people about the research they have done

Journal = A book with different articles that other psychologists read

Faculty of Health Ethics Committee = A group of people who look over the study and make sure that all the guidelines for the survey are followed

University of
East Anglia

Vignette

Please read the following short description of Sam and answer the following questions:

Sam is 17 and lives at home with his parents. Over the last six months he has stopped seeing his friends and has begun locking himself in his bedroom and refusing to eat with his family or to have a bath. His speech is sometimes incoherent and disorganised. His parents also hear him walking about his bedroom at night while they are in bed. Even though they know he is alone, they have heard him shouting and arguing as if someone else is in there. When they try to encourage him to do more things, he whispers that he won't leave home because the neighbour is spying on him.

What label, word or diagnosis would you give to Sam's problem described above?

....

University of East Anglia

Now that you have read the description of Sam, please tell us how happy you would be to:

	1 Yes Definitely	2 Yes Probably	3 Probably Not	4 Definitely Not
Live next door to Sam?				
Make Friends with Sam?				
Spend an evening socialising with Sam?				
Work closely at school with Sam?				
Invite Sam around to your house?				

In your opinion, how likely is it that Sam's situation might have been caused by:

	1 Very Unlikely	2 Somewhat Unlikely	3 Neither Unlikely or Likely	4 Somewhat Likely	5 Very Likely
Brain Disease					
Heredity					
Life Event					
Stress at work					
Supernatural causes					
A broken home					
Lack of parental affection					
Unconscious Conflict					
Lack of will power					
Alcohol Abuse					
Immoral life style					

Please complete this questionnaire by ticking the relevant response to each statement

	1 Strongly Agree	2	3	4	5	6 Strongly Disagree
1.Most people would willingly accept a former mental patient as a close friend						
2.Most people believe that a person who has been in a mental hospital is just as intelligent as the average person						
3.Most people believe that a former mental patient is just as trustworthy as the average citizen						
4.Most people would accept a fully recovered former mental patient as a teacher of young children in a public school						
5. Most people feel that entering a mental hospital is a sign of personal failure						
6. Most people would not hire a former mental patient to take care of their children, even if he or she had been well for some time						

Please complete this questionnaire by ticking the relevant response to each statement

	1 Strongly Agree	2	3	4	5	6 Strongly Disagree
7. Most people think less of a person who has been in a mental hospital						
8. Most employers will hire a former mental patient if he or she is qualified for the job						
9. Most employers will pass over the application of a former mental patient in favour of another applicant						
10. Most people in my community would treat a former mental patient just as they would treat anyone.						
11. Most young women would be reluctant to date a man who has been hospitalised for a serious mental disorder						
12. Once they know a person was in hospital, most people will take his or her opinion less seriously						

Now tell us how much contact you have had with someone with a problem like Sam's

☐ **I have watched a movie or television show involving a character with a problem like Sam's**

☐ **I have observed a person who I think may have had a problem like Sam's.**

☐ **I have observed a person who has a problem like Sam's.**

☐ **I have a problem like Sam's.**

☐ **I have been in a class with a person who has a problem like Sam's.**

☐ **I have never observed a person with a problem like Sam's.**

☐ **A friend of my family has a problem like Sam's.**

☐ **I have a relative who has a problem like Sam's.**

☐ **I have watched a TV documentary about a person who has a problem like Sam's.**

☐ **I live with someone with a problem like Sam's.**

University of
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This is a 'Who Am I?' questionnaire. Below are 10 fill-in the blank areas for you to answer the basic question 'Who am I?'. Simply write an answer next to each 'I am' and make each answer different.

1. **I am** _____

2. **I am** _____

3. **I am** _____

4. **I am** _____

5. **I am** _____

6. **I am** _____

7. **I am** _____

8. **I am** _____

9. **I am** _____

10. **I am** _____

Please answer (by circling the most appropriate answer when appropriate) the following questions about yourself

Culture: British   Pakistani

Gender: Male   Female

Age: .... years old

Do you have personal experience of mental illness?   Yes   No

If yes, please specify: Self   Family member   Friend   Other ....

Religion: ....

Length of time in the UK: ....years

Please complete the scale below

How British do you see yourself?

1------2------3------4------5------6------7------8------9------10

Not at all   Moderately   Extremely

How much do you enjoy living in Britain?

1------2------3------4------5------6------7------8------9------10

Not at all   Moderately   Extremely

Debriefing Sheet

Thank you very much for taking time to complete the questions.

This study is interested in looking at stigma towards mental illness and investigating if there are any cultural differences. 1 in 5 people will experience a mental illness. Although this is very common, people with mental illness often experience stigma which makes it difficult for them to lead a normal life.

This research will help us to develop a better understanding of stigma towards mental illness, show if there are differences between cultures and help us to develop appropriate and effective anti-stigma programmes by detailing what information it would be useful to have in such programmes.

We hope that you have found the study interesting to complete. If you did, please tell others about the study, so that they can also participate.

It is possible that you may have found some of the questions a little upsetting, which may have brought up some uncomfortable feelings. If you feel that you need some help or are worried someone you know, or would like to find out more about mental health problems, here are some useful contact details:

Your GP

Your school nurse/counsellor

Young minds website: www.youngminds.org.uk

Samaritans: www.samaritans .org.uk or call for 24 hours-a-day support: 08457 90 90 90

Researcher:	Ms Shemin Mohamed
	Trainee Clinical Psychologist
Address:	Doctoral Programme in Clinical Psychology
	School of Medicine, Health Policy and Practice
	University of East Anglia
	Norwich, Norfolk
	NR4 7TJ
Email:	Shemin.Mohamed@uea.ac.uk

University of
East Anglia

You have now completed the study.

Please return the survey in the envelope provided

If you would like to receive a summary of the results and/or be entered into the free prize draw please complete and tear of the slip below and return it with your questionnaire.

Please tear here

Pick tick the relevant boxes

☐ I would like to receive a summary of the results

☐ I would like to be entered into the free prize draw

My email address is: _____

Appendix E: Letter Sent to Youth Clubs

UEA University of East Anglia

Dear

My Name is Shemin Mohamed and I am a Trainee Clinical Psychologist studying on the Doctoral Programme in Clinical Psychology at the University of East Anglia (UEA). As part of my course I am required to undertake a research project. I am writing to ask whether you would allow me to invite some of your students to participate in my research.

What is the research study about?

The research is investigating whether there are any cultural differences in stigma towards mental illness between British and Pakistani adolescents living in the UK. It will look at adolescents' attitudes, knowledge, experience and behaviour towards those with mental illness. The research will attempt to find this out by surveying a proportion of 16-18 year old students and asking them to read a short description of a person named Sam and then asking them to complete a number of questionnaires. The project could potentially impact on what material is covered in anti-stigma programmes in order for them to be more effective in decreasing stigma towards mental illness in our society.

What would the research involve for your institution?

For this study, I would like to recruit students who are aged 16-18 years and define their culture as British or Pakistani. Data collection is planned to take place between October 2010 and April 2011.Each person can freely choose whether to take part in the study. Participants will be asked to complete a paper based survey. The research procedure will consist of the following parts:

1. A short presentation will be given to all youth aged between 16-18 years informing them that the study is interested in whether there are cultural differences in attitudes. (This is optional)

2. Paper based surveys will then be distributed to all youth. The top page of the survey will outline details of research study and invite the youth who define their culture as Pakistani to participate.

If a presentation is not requested, youth clubs will be asked to distribute the surveys to Pakistani youth aged between 16-18 years.

3. Participants will then be asked to complete the survey. This will take approximately 15-20 minutes.

4. Once participants have completed the questionnaires, they will be presented with a debrief sheet as the final page of the survey. Participants will also have the opportunity to request a summary of the findings and/or be entered into a prize draw with the opportunity to win £50 High Street Vouchers.

Please note that I am focussing on recruiting students who define their culture as <u>Pakistani</u> as I have already had a large number of students who define their culture as British complete my survey.

Confidentiality of responses

The questionnaires do not require students to give any information about them or the place that they were recruited. All data will be stored securely on a password protected computer database or in a locked filing cabinet. Only my supervisor and myself will have access to the data. Any reports for publication will not contain identifiable information of individual students. The results will be analysed using a computer package that will look at differences in the overall results between the British and Pakistani students.

Official review of the project

Supervision of the project will be provided by Dr Laura Jobson (Clinical Lecturer in Clinical Psychology) who is based at UEA. Ethical approval for the project has been obtained from the Faculty of Heath Ethics committee based at UEA.

What to do next

Thank you for taking time to read this information. If you are interested in more details about the study, I will be happy to arrange a meeting with you or a member of your team to discuss the project and have a look over the participant invitation letters, information sheets and questionnaires if you wish. If you are willing for your students to be asked to take part in the research study, please contact me on the details given below.

If you have any questions, please do not hesitate to contact me. Alternatively you could contact Dr Laura Jobson, whose contact details are also provided below.

Yours sincerely

Shemin Mohamed

Contact Details:

Researcher: Ms Shemin Mohamed

Trainee Clinical Psychologist

Address: Doctoral Programme in Clinical Psychology

School of Medicine, Health Policy and Practice

University of East Anglia

Norwich, Norfolk

NR4 7TJ

Email: Shemin.Mohamed@uea.ac.uk

Supervisor: Dr Laura Jobson

Address: Doctoral Programme in Clinical Psychology

School of Medicine, Health Policy and Practice

University of East Anglia

Norwich, Norfolk

NR4 7TJ

Email: L.Jobson@uea.ac.uk

Appendix F: Approval from Ethics Committee

Faculty of Health Research Ethics Committee

UEA
University of East Anglia

Shemin Mohamed

Faculty of Health Research Office
Elizabeth Fry Building, Room 2.30
University of East Anglia
Norwich NR4 7TJ

Email: margaret.rhodes@uea.ac.uk
Direct Dial: +44 (0) 1603 59 7190
Research: +44 (0) 1603 59 1720
Fax: +44 (0) 1603 59 1132

Web: http://www.uea.ac.uk

19th November 2010

Dear Shemin

Stigma and mental illness: Are there cultural differences? Reference 2010/11-06

The amendments to your above proposal have now been considered by the Chair of the FOH Research Ethics Committee and we can now confirm that your proposal has been approved.

Please could you ensure that any amendments to either the protocol or documents submitted are notified to us in advance and also that any adverse events which occur during your project are reported to the Committee. Please could you also arrange to send us a report once your project is completed.

The Chair would like to wish you good luck with your project.

Yours sincerely

Maggie Rhodes
Research Administrator

Appendix G: Information Sheet for Participants

Are there cultural differences in attitudes?

Researcher: Shemin Mohamed, Trainee Clinical Psychologist, University of East Anglia

Research Supervisor: Dr Laura Jobson, Clinical Lecturer, University of East Anglia

You are invited to take part in a survey*. This is organised by the University of East Anglia (UEA) as part of a Doctorate in Clinical Psychology to become a qualified Clinical Psychologist.

Please take time to read the following information carefully before you decide whether or not you wish to take part. It is important that you understand why the survey is being done and what it will involve.

What is the purpose of the survey?

The purpose of the survey is to examine the attitudes and general awareness of adolescents about a number of important community issues.

Why have I been invited to take part?

You have been invited to take part in the survey because you are aged 16-18 years old and have described yourself in terms of your culture* as either British or Pakistani. This study is interested in looking at whether there are cultural differences between these two groups.

What is involved in the survey?

If you decide to take part in this survey, you will be asked to read a short description of a person named Sam and then you will be asked to complete a number of questions about Sam. That's all there is to it! There are no right or wrong answers to these questions and it is important that you answer the questions as honestly as you can.. You will then be asked about yourself (e.g., gender, age, culture). Once you have completed the questions, you will be asked to **"submit"** your answers. When this has been done, you have finished the survey. You will then be taken to the last page of the survey (debrief page*) and have an opportunity to read more about the survey. If you are interested in finding out more about the results of

the survey and/or if you would like to be entered into the prize draw (where you could win £50 High Street vouchers), you will be asked to leave me your email address.

You have a choice if you want to take part

The survey is voluntary and it is up to you to decide if you would like to take part in it. If you decide to take part, and then change your mind, you are able to withdraw without giving a reason. There will be a **"withdraw"** option at the top of each page. If you select this, you will not be asked any more questions and will be taken to the last page of the survey (debrief page).

How long will it take?

The questions will take 20-25 minutes to complete. The questionnaires are all brief and people tend to move through them quite quickly. Once you have completed the questionnaires, you will be asked to **"submit"** your answers.

What about confidentiality?

The survey is confidential and we will not ask you for your name at any time. This is to help you to be honest in your answers. In addition, the information will be coded in such a way that answers will be anonymous and stored in a way that is inaccessible to anyone other than me and my supervisor. Email addresses will be stored separately to the questionnaires to make sure your details are anonymous. These will be destroyed once the results of the survey have been sent out and the prize draw has taken place.

What are the possible benefits and risks in taking part in this study?

I cannot promise that the survey will benefit you personally, however taking part in the survey will help to develop a better understanding of people's attitudes and general awareness about a number of important community issues. It is not considered that there are any risks to taking part in this survey, however if it does cause you any stress, we advise that you stop completing the survey. If you feel particularly upset and in need of some help, we strongly encourage that you speak to an adult (e.g., teacher, school nurse/counsellor or parent) or visit your GP for advice or visit www.youngminds.org.uk for more information.

What will happen to my information if I choose to take part?

During the study, your information will be kept in a locked filing cabinet at the university. When the survey is finished, it will be kept for 5 years in a locked filing cabinet at the university. **As already mentioned, email addresses (if you would like a summary of the**

results and/or would like to be entered into the prize draw) will be stored separately from your answers on the questionnaires.

What will happen to the results of the survey?

The results of the survey will be written up as a report which will form part of my requirements to become a qualified Clinical Psychologist It is also possible that the findings may also be presented at conferences* and/or written up as an article for a journal*.

Who is organising and funding the research?

The survey is being supervised by a tutor at the university, and is also being funded by the university. The Faculty of Health Ethics Committee* at the university has also approved the study.

What if I have a question or issue?

Should you have any questions or issues about the survey, please feel free to contact me using the contact details below.

Now what do I do?

If you would like to take part in the research, please select the "I consent" option at the bottom of the page. This will allow you to start the study. Please only consent to completing the questionnaires if you are aged 16-18 years old, are currently in school, college or university at the moment, and have described your culture as either British or Pakistani, you have read and understood the information sheet and you consent to taking part in the survey. Please note that by completing and submitting the answers, you are consenting to take part in the study.

If you are under 16 years or over 18 years, are not in education (e.g., school, college or university), do not define your culture as British or Pakistani, have not understood this information sheet or would not like to participate in this research, please select the "I do not consent" option.

Thank you for your time

Contact Details:

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*Glossary of Terms:

Survey = Where people are asked to answer questions

Culture = The set of shared attitudes, values, and practices that a group of people have.

Debrief Page = The last page of the survey with important information about the survey

Conference = A place where psychologists meet and tell other people about the research they have done

Journal = A book with different articles that other psychologists read

Faculty of Health Ethics Committee = A group of people who look over the study and make sure that all the guidelines for the survey are followed

Appendix H: Vignette Describing a Person with Psychosis

Please read the following short description of Sam and answer the following questions:

Sam is 17 and lives at home with his parents. Over the last six months he has stopped seeing his friends and has begun locking himself in his bedroom and refusing to eat with his family or to have a bath. His speech is sometimes incoherent and disorganised. His parents also hear him walking about his bedroom at night while they are in bed. Even though they know he is alone, they have heard him shouting and arguing as if someone else is in there. When they try to encourage him to do more things, he whispers that he won't leave home because the neighbour is spying on him.

What label, word or diagnosis would you give to Sam's problem described above?

....

Appendix I: Social Distance Scale

(Link, Cullen, Frank, & Woznaik, 1987; Adapted by Jorm & Wright, 2008)

Now that you have read the description of Sam, please tell us how happy you would be to:

	1 Yes Definitely	2 Yes Probably	3 Probably Not	4 Definitely Not
Live next door to Sam?				
Make Friends with Sam?				
Spend an evening socialising with Sam?				
Work closely at school with Sam?				
Invite Sam around to your house?				

Appendix J: Perception of Causes Questionnaire

(Angermeyer, Beck, & Matschinger, 2003)

In your opinion, how likely is it that Sam's situation might have been caused by:

	1 **Very Unlikely**	2 **Somewhat Unlikely**	3 **Neither Unlikely or Likely**	4 **Somewhat Likely**	5 **Very Likely**
Brain Disease					
Heredity					
Life Event					
Stress at work					
Supernatural causes					
A broken home					
Lack of parental affection					
Unconscious Conflict					
Lack of will power					
Alcohol Abuse					
Immoral life style					

Appendix K: Devaluation-Discrimination Measure

(Link, Cullen, Struening, Shrout, & Dohrenwend, 1989)

Please complete this questionnaire by ticking the relevant response to each statement

	1 Strongly Agree	2	3	4	5	6 Strongly Disagree
1.Most people would willingly accept a former mental patient as a close friend						
2.Most people believe that a person who has been in a mental hospital is just as intelligent as the average person						
3.Most people believe that a former mental patient is just as trustworthy as the average citizen						
4.Most people would accept a fully recovered former mental patient as a teacher of young children in a public school						
5. Most people feel that entering a mental hospital is a sign of personal failure						
6. Most people would not hire a former mental patient to take care of their children, even if he or she had been well for some time						

Devaluation-Discrimination Measure Cont.

University of East Anglia

Please complete this questionnaire by ticking the relevant response to each statement

	1 Strongly Agree	2	3	4	5	6 Strongly Disagree
7. Most people think less of a person who has been in a mental hospital						
8. Most employers will hire a former mental patient if he or she is qualified for the job						
9. Most employers will pass over the application of a former mental patient in favour of another applicant						
10. Most people in my community would treat a former mental patient just as they would treat anyone.						
11. Most young women would be reluctant to date a man who has been hospitalised for a serious mental disorder						
12. Once they know a person was in hospital, most people will take his or her opinion less seriously						

Appendix L: Level of Contact Report

(Holmes, Corrigan, Williams, Canar, & Kubiak, 1999)

Now tell us how much contact you have had with someone with a problem like Sam's

☐ **I have watched a movie or television show involving a character with a problem like Sam's**

☐ **I have observed a person who I think may have had a problem like Sam's.**

☐ **I have observed a person who has a problem like Sam's.**

☐ **I have a problem like Sam's.**

☐ **I have been in a class with a person who has a problem like Sam's.**

☐ **I have never observed a person with a problem like Sam's.**

☐ **A friend of my family has a problem like Sam's.**

☐ **I have a relative who has a problem like Sam's.**

☐ **I have watched a TV documentary about a person who has a problem like Sam's.**

☐ **I live with someone with a problem like Sam's.**

Appendix M: Twenty Statements Test

(Kuhn & McPartland, 1954)

This is a 'Who Am I?' questionnaire. Below are 10 fill-in the blank areas for you to answer the basic question 'Who am I?'. Simply write an answer next to each 'I am' and make each answer different.

1. **I am** _____

2. **I am** _____

3. **I am** _____

4. **I am** _____

5. **I am** _____

6. **I am** _____

7. **I am** _____

8. **I am** _____

9. **I am** _____

10. **I am** _____

Appendix N: Demographic Information

Please answer (by circling the most appropriate answer when appropriate) the following questions about yourself

Culture: British   Pakistani

Gender: Male   Female

Age: .... years old

Do you have personal experience of mental illness?   Yes   No

If yes, please specify: Self   Family member   Friend   Other ....

Religion: ....

Length of time in the UK: ....years

Please complete the scale below

How British do you see yourself?

    1------2------3------4------5------6------7------8------9------10

  Not at all   Moderately   Extremely

How much do you enjoy living in Britain?

    1------2------3------4------5------6------7------8------9------10

  Not at all   Moderately   Extremely

Appendix O: Debrief Sheet

Thank you very much for taking time to complete the questions.

This study is interested in looking at stigma towards mental illness and investigating if there are any cultural differences. 1 in 5 people will experience a mental illness. Although this is very common, people with mental illness often experience stigma which makes it difficult for them to lead a normal life.

This research will help us to develop a better understanding of stigma towards mental illness, show if there are differences between cultures and help us to develop appropriate and effective anti-stigma programmes by detailing what information it would be useful to have in such programmes.

We hope that you have found the study interesting to complete. If you did, please tell others about the study, so that they can also participate.

It is possible that you may have found some of the questions a little upsetting, which may have brought up some uncomfortable feelings. If you feel that you need some help or are worried someone you know, or would like to find out more about mental health problems, here are some useful contact details:

Your GP

Your school nurse/counsellor

Young minds website: www.youngminds.org.uk

Samaritans: www.samaritans .org.uk or call for 24 hours-a-day support: 08457 90 90 90

Researcher: Ms Shemin Mohamed

           Trainee Clinical Psychologist

Address: Doctoral Programme in Clinical Psychology

           School of Medicine, Health Policy and Practice

           University of East Anglia

           Norwich, Norfolk, NR4 7TJ

Email: Shemin.Mohamed@uea.ac.uk

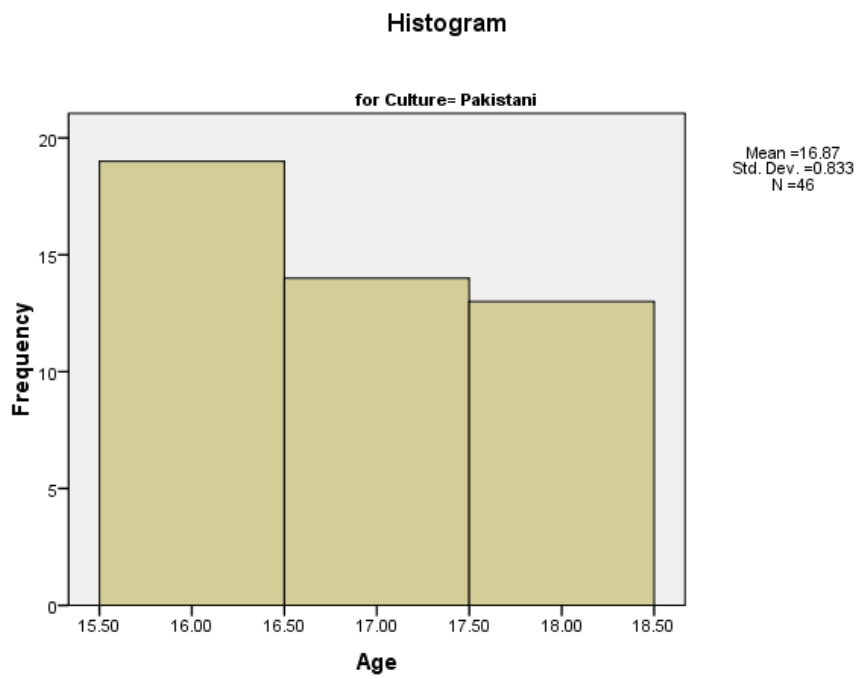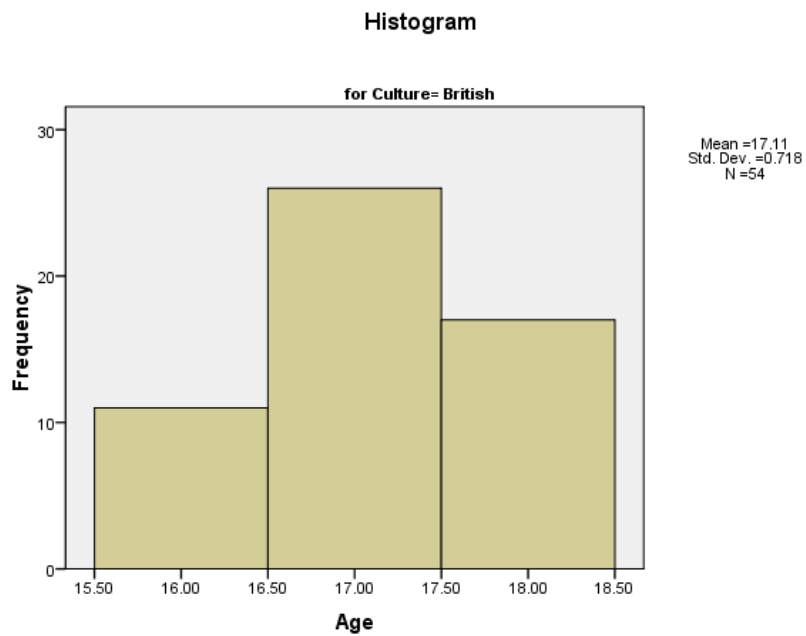**Appendix P: Testing Assumptions for Parametric Analyses - Demographic Variables**

P.1 Age

Histogram

for Culture= British

Mean =17.11
Std. Dev. =0.718
N =54

Histogram

for Culture= Pakistani

Mean =16.87
Std. Dev. =0.833
N =46

Table P1.

Skewness, Kurtosis and K-S Test Values for Untransformed and Transformed Data of Age

	British			Pakistani		
	Skewness (SE)	Kurtosis (SE)	K-S Test	Skewness (SE)	Kurtosis (SE)	K-S Test
Untransformed	-.17 (0.33)	-1.00 (0.64)	$p < .001$	0.25 (0.35)	-1.52 (0.69)	$p < .001$
Logarithm	-0.23 (0.33)	-0.96 (0.64)	$p < .001$	0.22 (0.35)	-1.54 (0.69)	$p < .001$
Square Root	-0.20 (0.33)	-0.98 (0.64)	$p < .001$	0.24 (0.35)	-1.53 (0.69)	$p < .001$
Reciprocal	0.29 (0.33)	-0.92 (0.64)	$p < .001$	-0.19 (0.35)	-1.56 (0.69)	$p < .001$

P.2 Length of Time in the UK

Histogram

for Culture= British

Mean =16.48
Std. Dev. =2.337
N =54

Histogram

for Culture= Pakistani

Mean =15.70
Std. Dev. =3.054
N =46
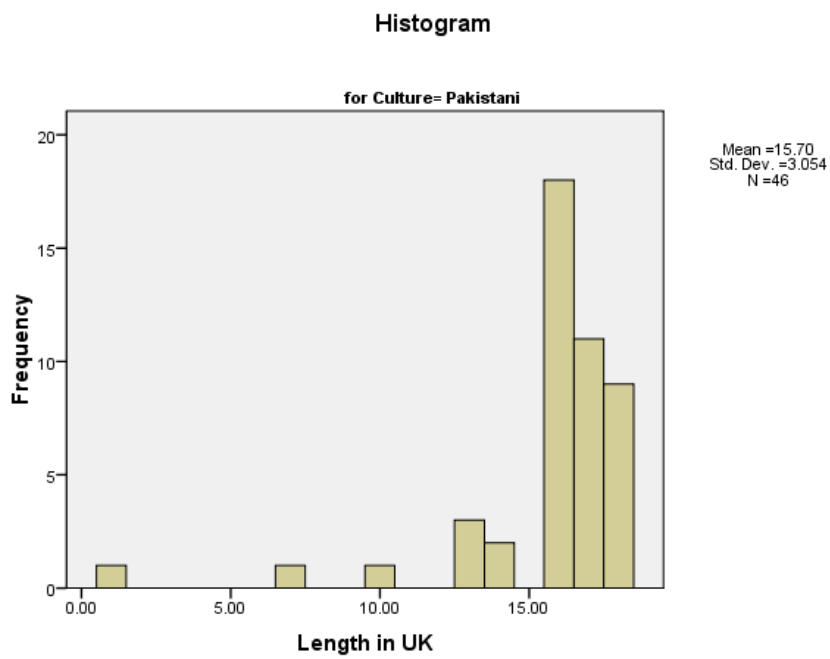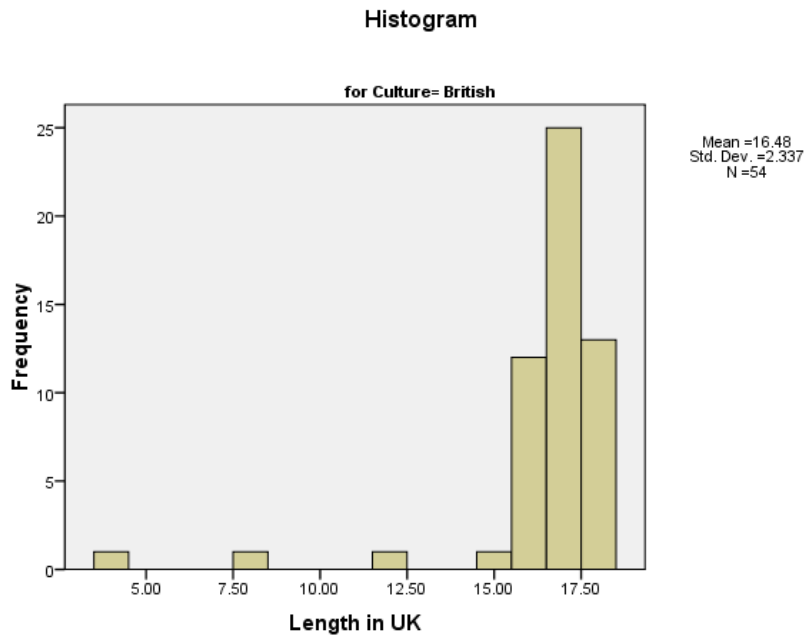
Table P2.

Skewness, Kurtosis and K-S Test Values for Untransformed and Transformed Data of Length of Time in UK

	British			Pakistani		
	Skewness *(SE)*	Kurtosis *(SE)*	K-S Test	Skewness *(SE)*	Kurtosis *(SE)*	K-S Test
Untransformed	-3.99 (0.33)	18.02 (0.64)	$p < .001$	-3.22 (0.35)	12.51 (0.69)	$p < .001$
Logarithm	-5.11 (0.33)	28.68 (0.64)	$p < .001$	-5.51 (0.35)	33.31 (0.69)	$p < .001$
Square Root	-4.53 (0.33)	22.88 (0.64)	$p < .001$	-4.30 (0.35)	21.64 (0.69)	$p < .001$
Reciprocal	6.19 (0.33)	40.82 (0.64)	$p < .001$	6.68 (0.35)	44.97 (0.69)	$p < .001$

P.3 How British Do You See Yourself?

Histogram

for Culture= British

Mean =7.69
Std. Dev. =2.247
N =54

Histogram

for Culture= Pakistani

Mean =7.61
Std. Dev. =1.68
N =46
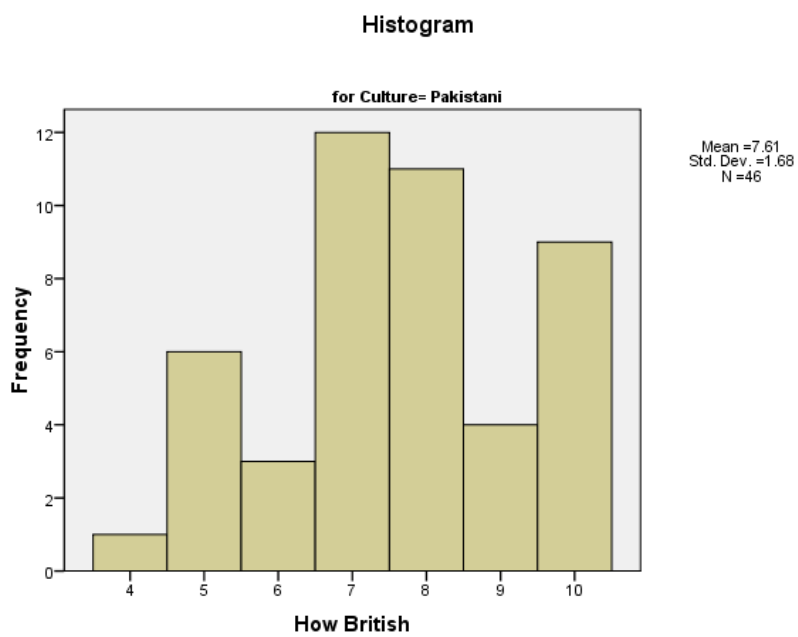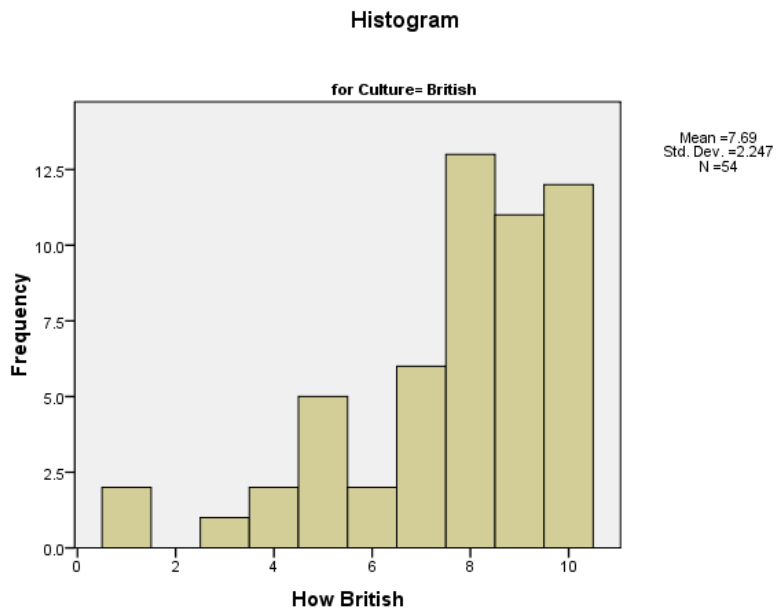
Table P3.

Skewness, Kurtosis and K-S Test Values for Untransformed and Transformed Data of How British Do You See Yourself?

	British			Pakistani		
	Skewness *(SE)*	Kurtosis *(SE)*	K-S Test	Skewness *(SE)*	Kurtosis *(SE)*	K-S Test
Untransformed	-1.27 (0.33)	1.38 (0.64)	$p < .001$	-0.17 (0.35)	-0.73 (0.69)	$p = .02$
Logarithm	-2.88 (0.33)	9.57 (0.64)	$p < .001$	-0.63 (0.35)	-0.15 (0.69)	$p < .001$
Square Root	-1.95 (0.33)	4.35 (0.64)	$p < .001$	-0.39 (0.35)	-0.50 (0.69)	$p < .001$
Reciprocal	4.51 (0.33)	20.55 (0.64)	$p < .001$	1.15 (0.35)	1.08 (0.69)	$p < .001$

P.4 How Much do you Enjoy Living in Britain?

Histogram

for Culture= British

Mean =6.69
Std. Dev. =1.831
N =54

Histogram

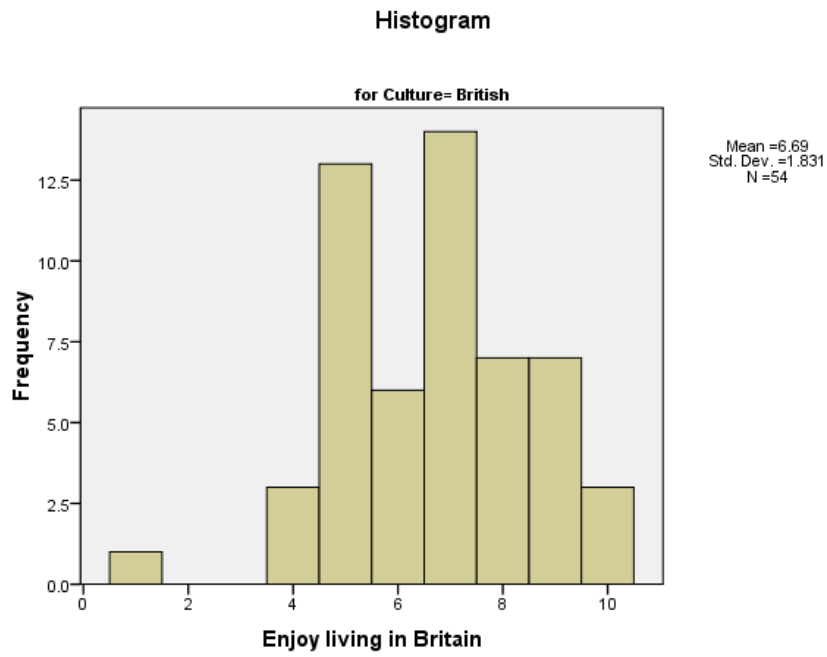for Culture= Pakistani

Mean =8.09
Std. Dev. =1.762
N =46
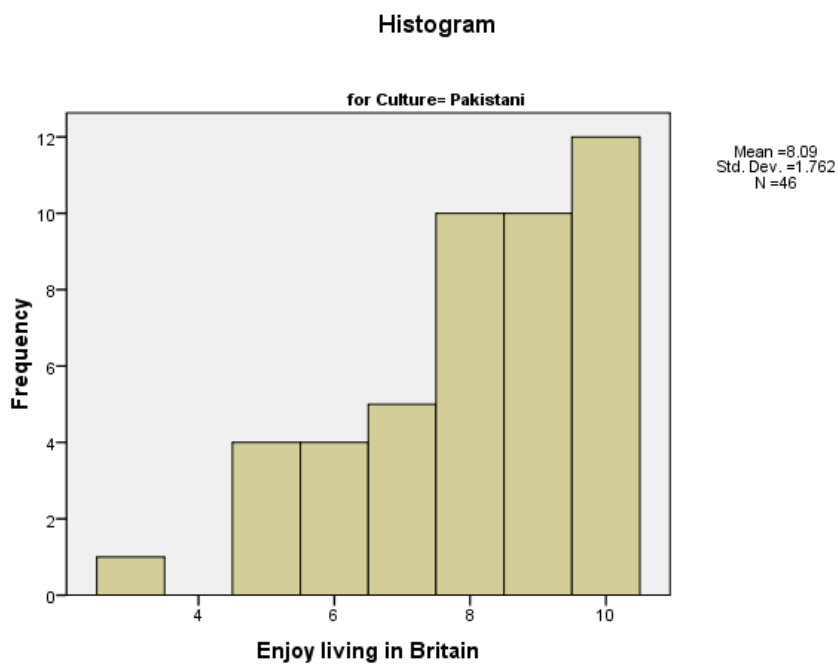
Table P4.

Skewness, Kurtosis and K-S Test Values for Untransformed and Transformed Data of How Much Do You Enjoy Living In Britain?

	British			Pakistani		
	Skewness *(SE)*	Kurtosis *(SE)*	K-S Test	Skewness *(SE)*	Kurtosis *(SE)*	K-S Test
Untransformed	-0.30 (0.33)	0.38 (0.64)	$p = .01$	-0.85 (0.35)	0.17 (0.69)	$p < .001$
Logarithm	-2.63 (0.33)	12.44 (0.64)	$p < .001$	-1.57 (0.35)	3.09 (0.69)	$p < .001$
Square Root	-1.14 (0.33)	3.56 (0.64)	$p < .001$	-1.17 (0.35)	1.26 (0.69)	$p < .001$
Reciprocal	6.16 (0.33)	42.29 (0.64)	$p < .001$	2.74 (0.35)	10.29 (0.69)	$p < .001$

Table P5.

Levene's Test for Equality of Variances for Demographic Variables for British and Pakistani groups

Variable	Levene's Test for Equality of Variances
Age	$F (1, 98) = 3.42, p = .07$
Length of Time in UK	$F (1, 98) = 1.53, p = .22$
How British do you See Yourself?	$F (1, 98) = 2.00, \ p = .16$
How Much do you Enjoy Living in Britain?	$F (1, 98) = .13, p = .72$

Appendix Q: Participants' Labelling Responses and Respective Coding Categories

'Label, Word or Diagnosis'	British *n*	Pakistani *n*	Coding Category
Schizophrenia or Paranoid Schizophrenic	30	5	Correct Psychiatric Diagnosis
Auditory Hallucinations or Hallucinating or Delusional Disorder or Delusional	2	2	Correct Psychiatric Diagnosis
Paranoid or Paranoia	10	8	Correct Psychiatric Diagnosis
Mentally Ill or Mental Illness or Mental Health Issues or Mental Health Difficulty	2	4	Psychiatric Illness Unspecified
Depression or Anxiety	4	8	Other Psychiatric Illness
Personality disorder	1	0	Other Psychiatric Illness
Strange or Mad or Mental or Split Personality	1	3	Other Definition of the Problem
Alone or Scared or Sad or Insecure or Lack of Confidence or Bullied	2	5	Other Definition of the Problem
Brain Injury or Amnesia	0	2	Other Definition of

			the Problem
Mentally Disturbed or Mentally Abused	0	4	Other Definition of the Problem
Possessed or Influenced by Evil Eye	0	2	Other Definition of the Problem
Personal problem or Family problem,	1	2	Other Definition of the Problem
Traumatised	0	1	Other Definition of the Problem
Drug user	1	0	Other Definition of the Problem

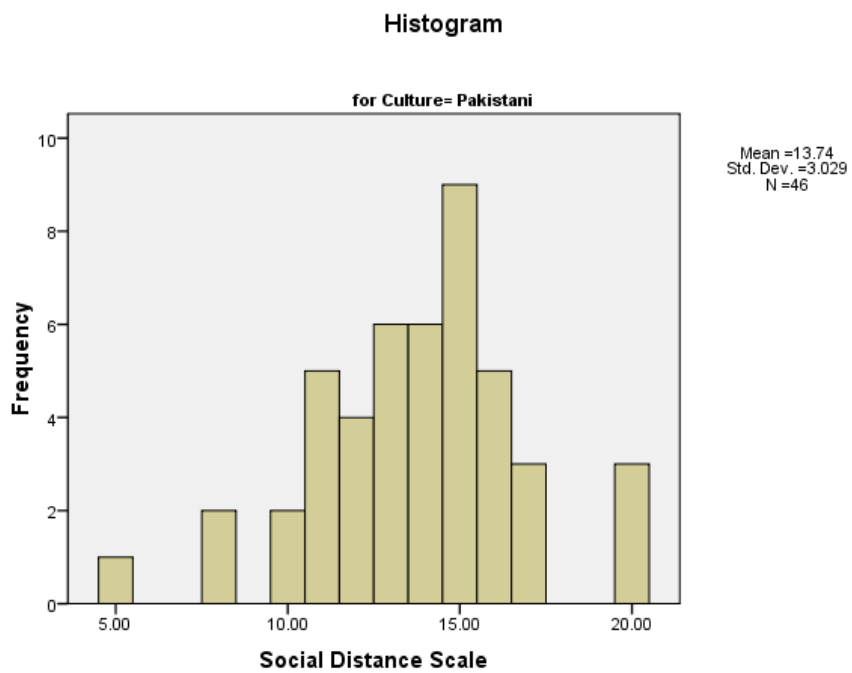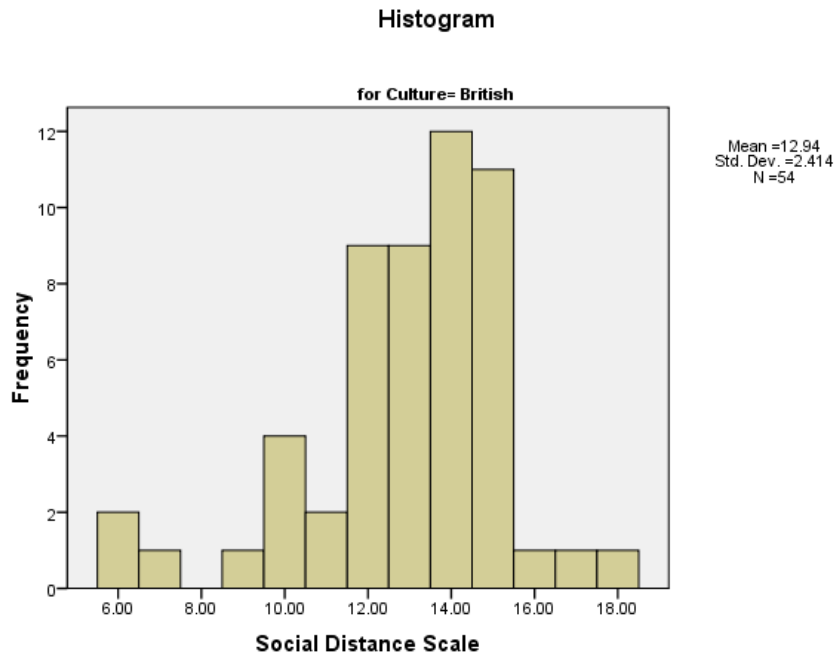**Appendix R: Testing Assumptions for Parametric Analyses – Measures**

R.1 Social Distance Scale

Histogram

for Culture= British

Mean =12.94
Std. Dev. =2.414
N =54

Histogram

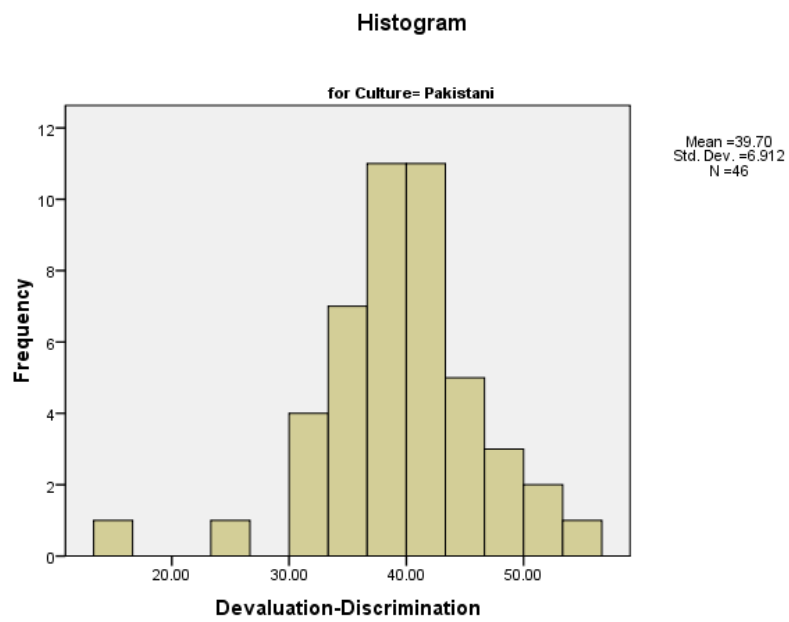for Culture= Pakistani

Mean =13.74
Std. Dev. =3.029
N =46

Table R1

Skewness, Kurtosis and K-S Test Values for Transformed Data of the Social Distance Scale

Type of Transformation	British			Pakistani		
	Skewness *(SE)*	Kurtosis *(SE)*	K-S Test	Skewness *(SE)*	Kurtosis *(SE)*	K-S Test
Logarithm	-1.82 (0.33)	4.07 (0.64)	*p* < .001	-1.49 (0.35)	4.28 (0.69)	*p* = .01
Square Root	-1.42 (0.33)	2.66 (0.64)	*p* < .001	-0.85 (0.35)	2.04 (0.69)	*p* = .07
Reciprocal	2.63 (0.33)	7.68 (0.64)	*p* < .001	3.07 (0.35)	13.24 (0.69)	*p* < .001

R.2 Devaluation-Discrimination Measure

Histogram

for Culture= British

Mean =39.80
Std. Dev. =5.681
N =54

Histogram

for Culture= Pakistani

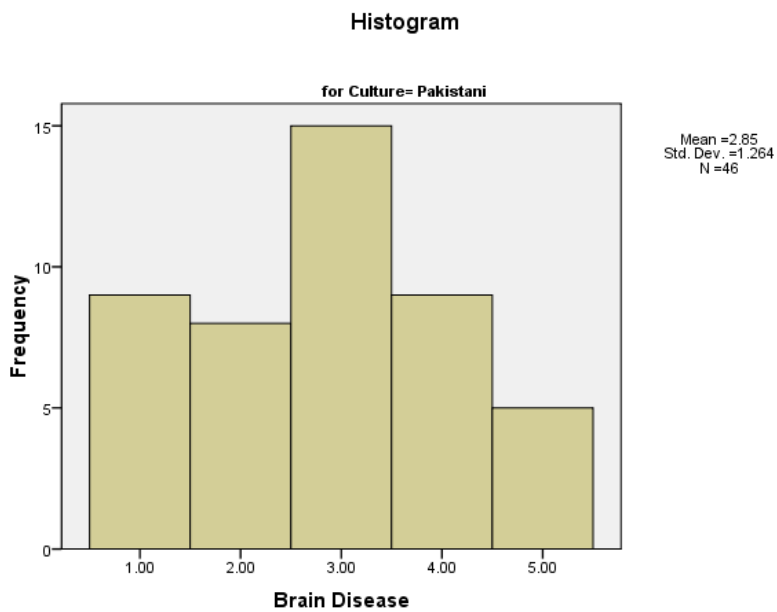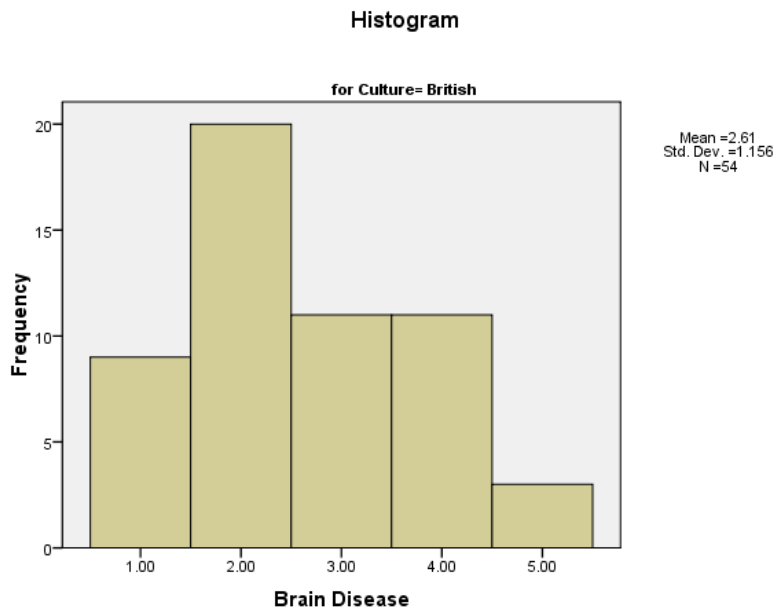Mean =39.70
Std. Dev. =6.912
N =46
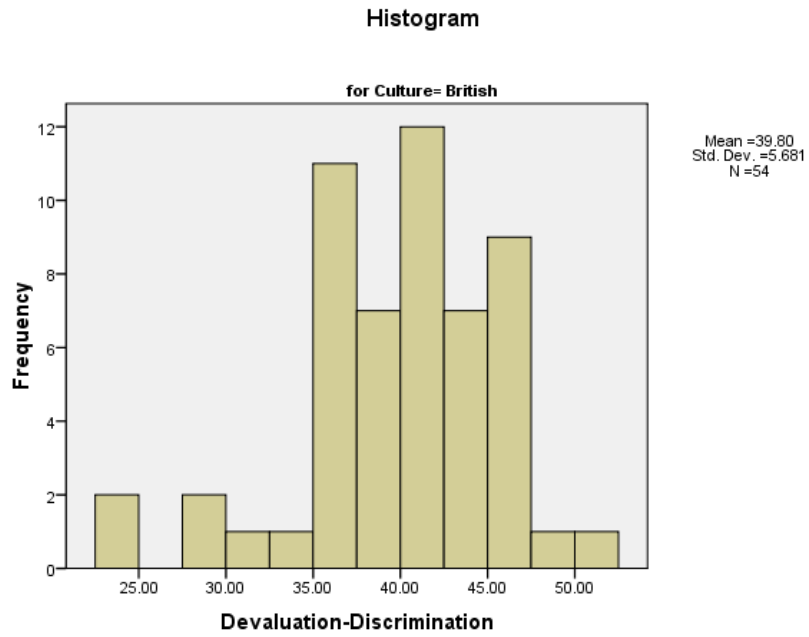
Table R2

Skewness, Kurtosis and K-S Test Values for Transformed Data of the Devaluation-

Discrimination Measure

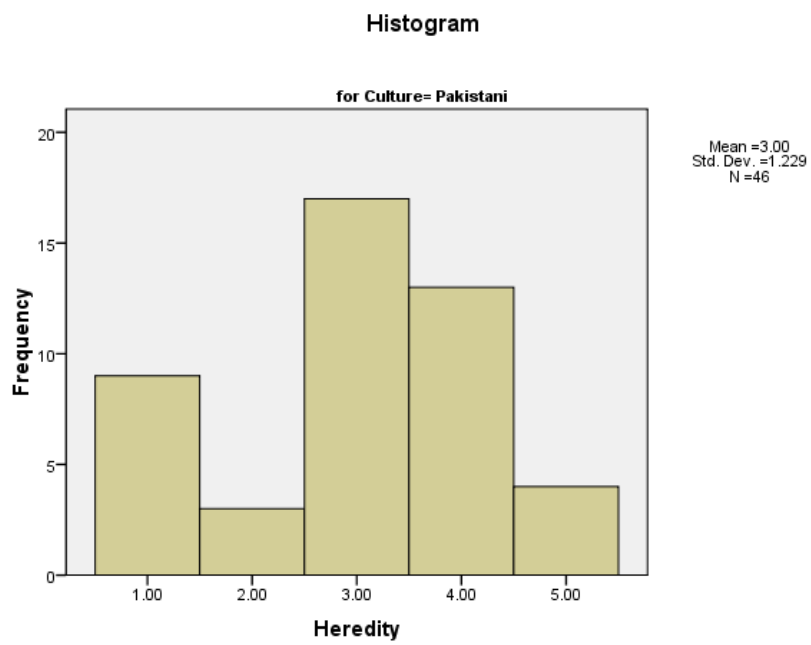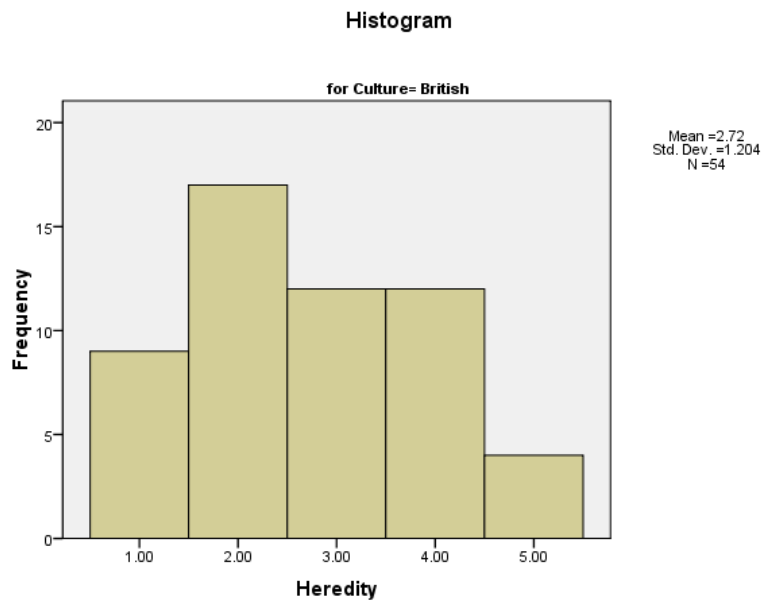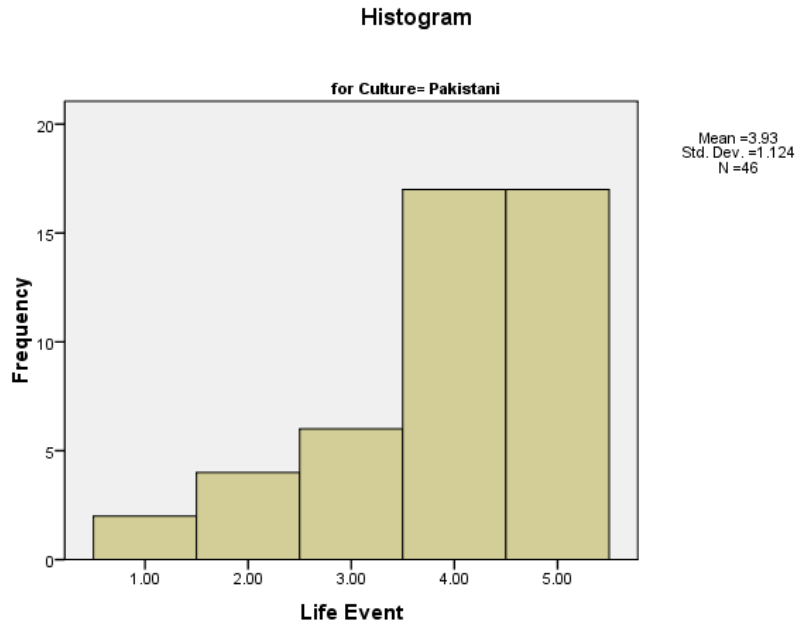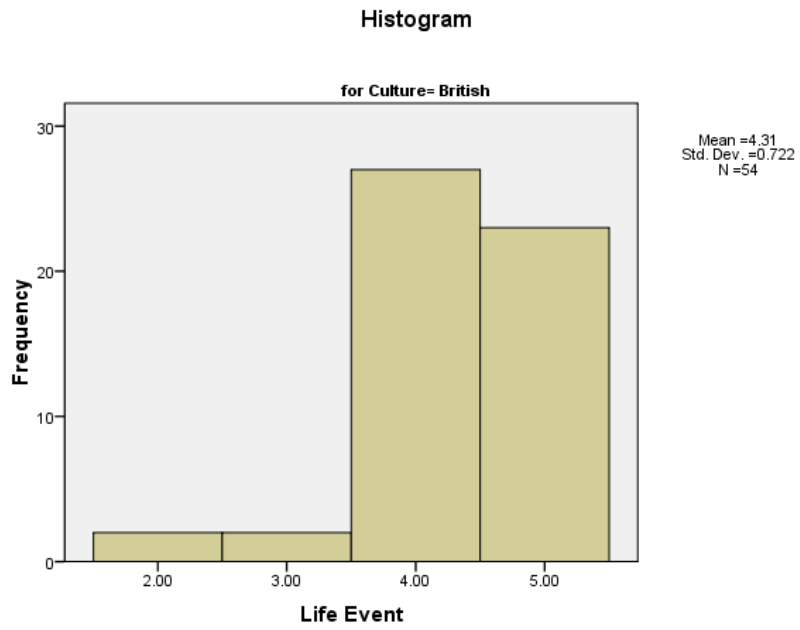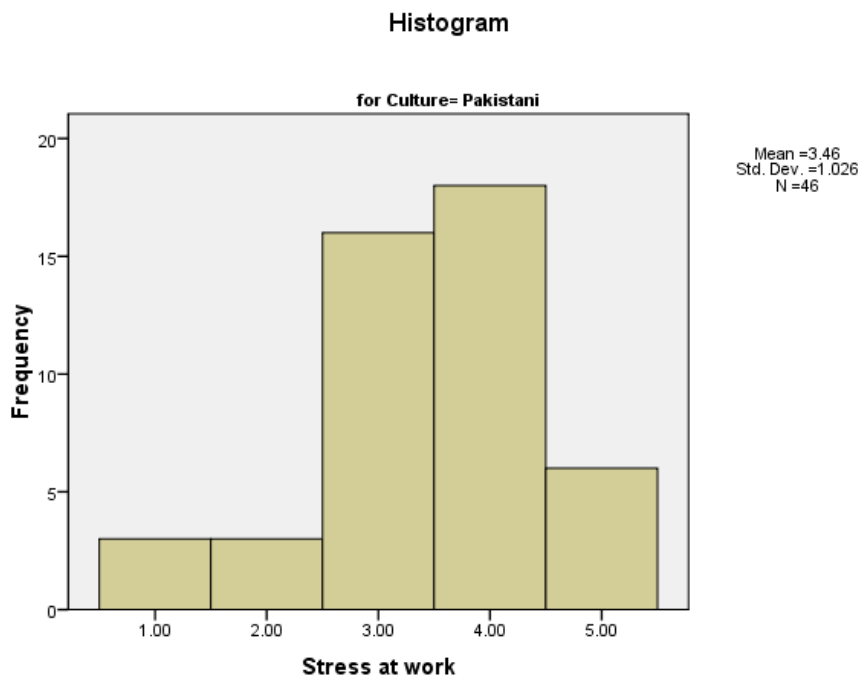|	British			Pakistani		
Type of Transformation	Skewness *(SE)*	Kurtosis *(SE)*	K-S Test	Skewness *(SE)*	Kurtosis *(SE)*	K-S Test
Logarithm	-1.43 (0.33)	2.90 (0.64)	$p = .01$	-2.30 (0.35)	9.58 (0.69)	$p < .001$
Square Root	-1.13 (0.33)	1.88 (0.64)	$p = .05$	-1.48 (0.35)	5.49 (0.69)	$p = .02$
Reciprocal	2.08 (0.33)	5.63 (0.64)	$p < .001$	4.10 (0.35)	21.85 (0.69)	$p < .001$

R.3 Perception of Causes Questionnaire
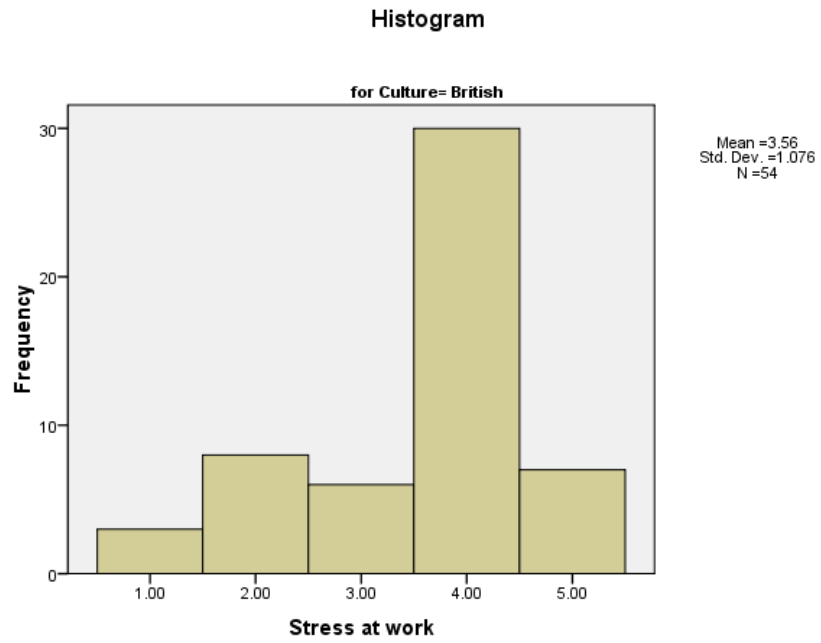
R.3.1 Brain disease.

R.3.2 Heredity.

R.3.3 Life event.

Histogram

for Culture= British

Mean =4.31
Std. Dev. =0.722
N =54

Histogram

for Culture= Pakistani

Mean =3.93
Std. Dev. =1.124
N =46

R.3.4 Stress at work.

Histogram

for Culture= British

Mean =3.56
Std. Dev. =1.076
N =54

Histogram

for Culture= Pakistani

Mean =3.46
Std. Dev. =1.026
N =46

R.3.5 Supernatural causes.

Histogram

for Culture= British

Mean =1.52
Std. Dev. =0.795
N =54

Histogram

for Culture= Pakistani

Mean =2.67
Std. Dev. =1.399
N =46

R.3.6 A broken home.

Histogram

for Culture= British

Mean =3.43
Std. Dev. =0.964
N =54

Histogram

for Culture= Pakistani

Mean =3.13
Std. Dev. =1.087
N =46

R.3.7 Lack of parental affection.

Histogram

for Culture= British

Mean =3.31
Std. Dev. =1.043
N =54

Lack of Parental Affection

Histogram

for Culture= Pakistani

Mean =3.33
Std. Dev. =1.076
N =46

Lack of Parental Affection

R.3.8 Unconscious conflict.

Histogram

for Culture= British

Mean =3.52
Std. Dev. =0.966
N =54

Histogram

for Culture= Pakistani

Mean =3.22
Std. Dev. =1.031
N =46

R.3.9 Lack of will power.

Histogram

for Culture= British

Mean =2.76
Std. Dev. =1.243
N =54

Histogram

for Culture= Pakistani

Mean =2.96
Std. Dev. =1.173
N =46

R.3.10 Alcohol abuse.

Histogram

Histogram

R.3.11 Immoral life style.

Histogram

for Culture= British

Mean =2.54
Std. Dev. =1.239
N =54

Histogram

for Culture= Pakistani

Mean =3.52
Std. Dev. =1.027
N =46
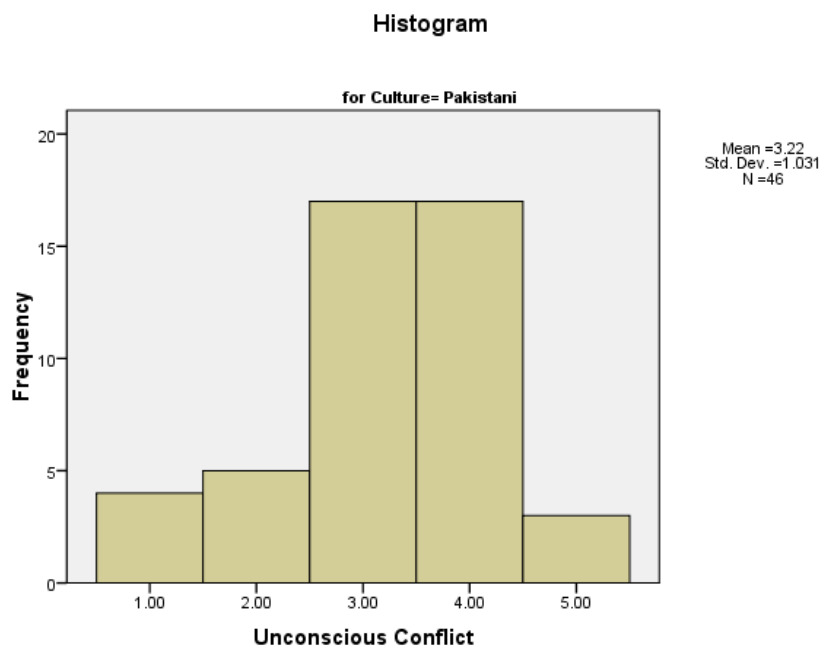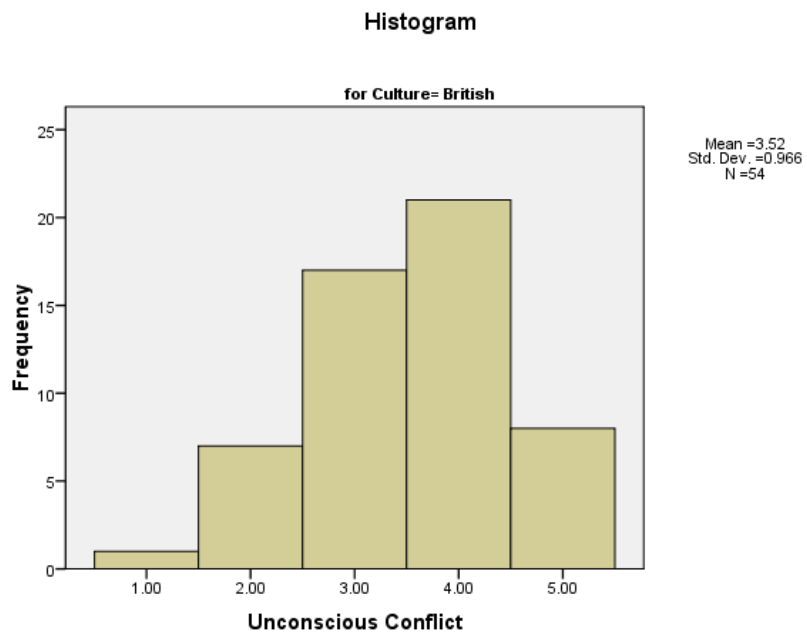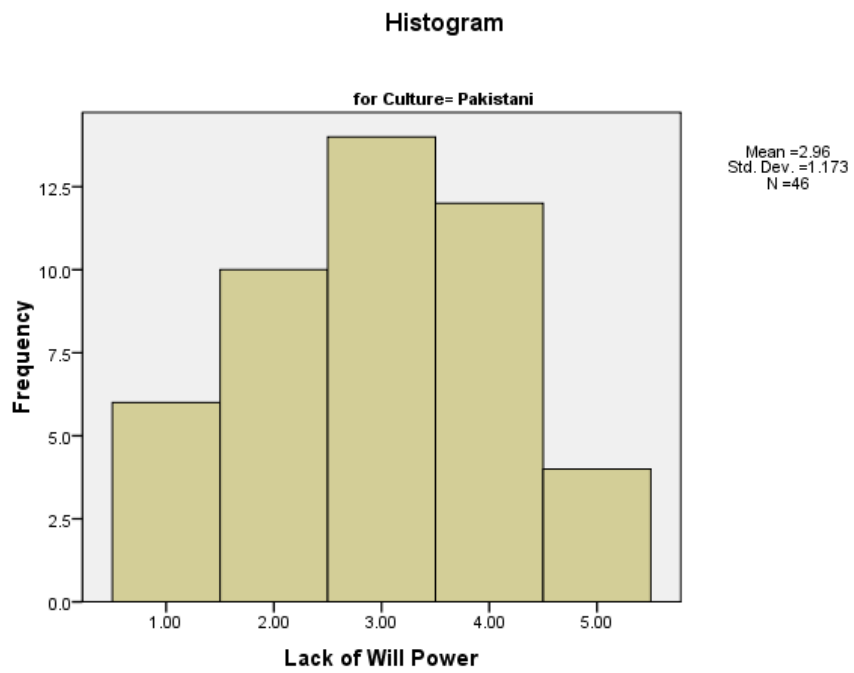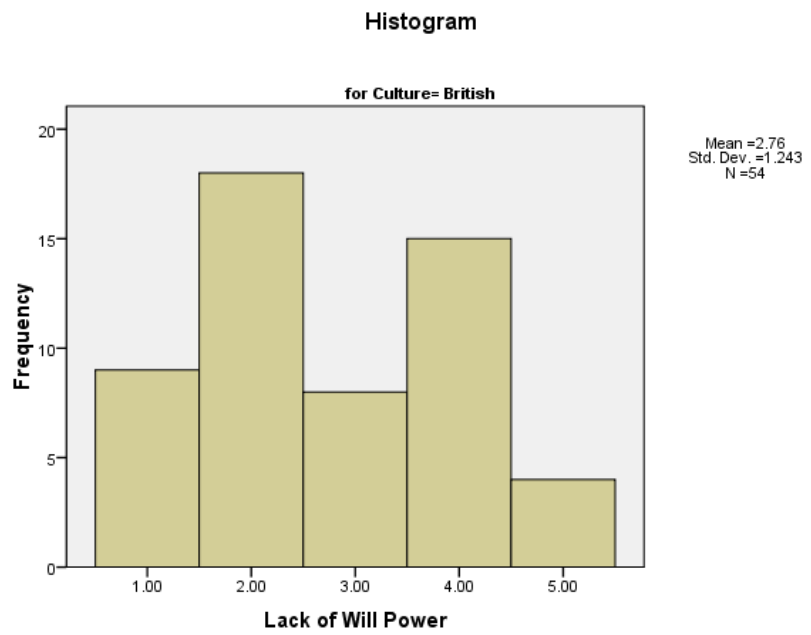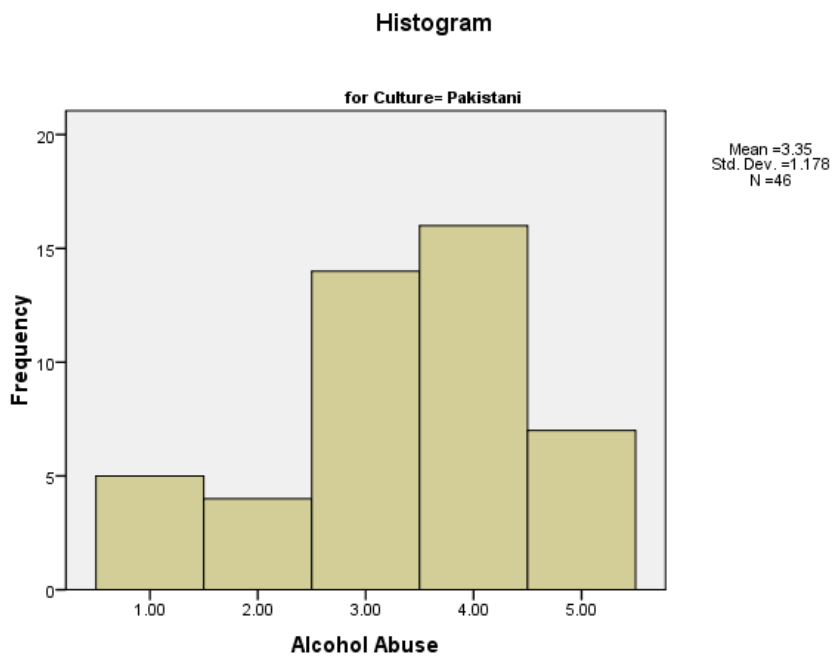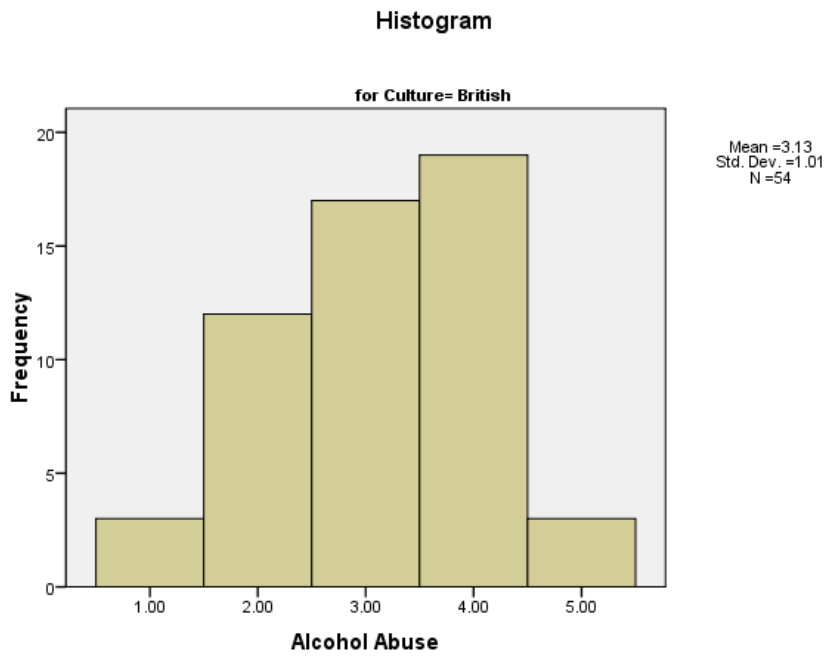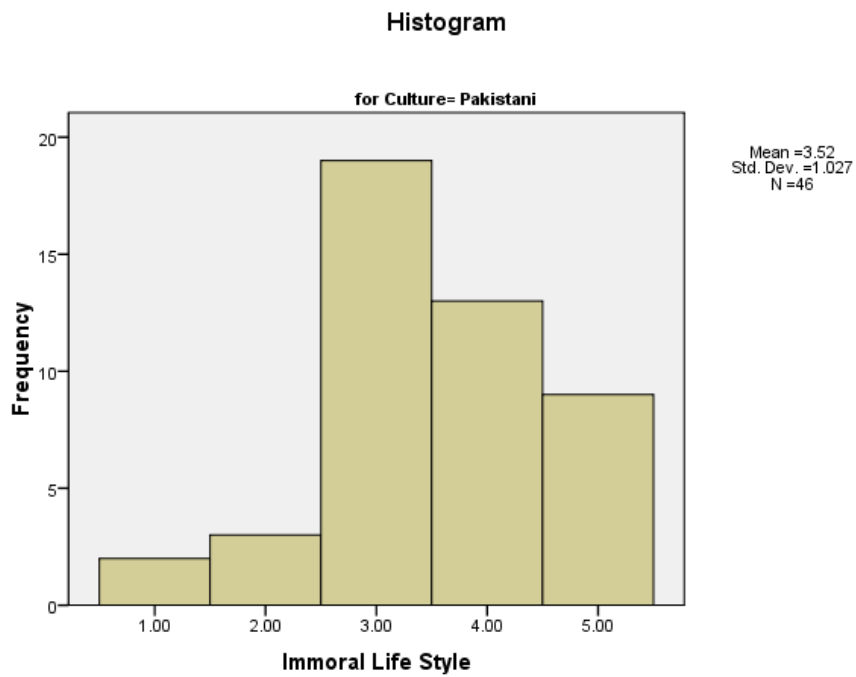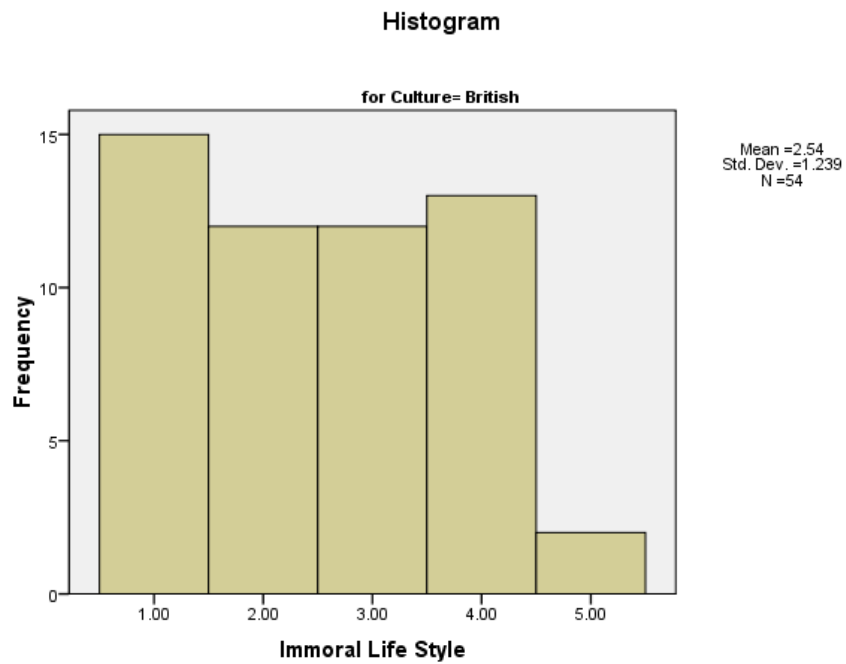
Table R3.

K-S Test Values for Items on the Perception of Causes Questionnaire for British and

Pakistani Participants

Perceived Cause	K-S Test	
	British	Pakistani
Brain Disease	$D(54) = .24, p < .001$	$D(46) = .18, p < .001$
Heredity	$D(54) = .21, p < .001$	$D(46) = .24, p < .001$
Life Event	$D(54) = .26, p < .001$	$D(46) = .26, p < .001$
Stress at Work	$D(54) = .35, p < .001$	$D(46) = .22, p < .001$
Supernatural Causes	$D(54) = .39, p < .001$	$D(46) = .19, p < .001$
A Broken Home	$D(54) = .32, p < .001$	$D(46) = .20, p < .001$
Lack of Parental Affection	$D(54) = .32, p < .001$	$D(46) = .21, p < .001$
Unconscious Conflict	$D(54) = .23, p < .001$	$D(46) = .22, p < .001$
Lack of Will Power	$D(54) = .23, p < .001$	$D(46) = .17, p < .001$
Alcohol Abuse	$D(54) = .21, p < .001$	$D(46) = .21, p < .001$
Immoral Life Style	$D(54) = .17, p < .001$	$D(46) = .21, p < .001$

Table R4.

Levene's Test for Equality of Variances for Items on Perception of Causes Questionnaire for the British and Pakistani groups

Perceived Cause	Levene's Test for Equality of Variances
Brain Disease	$F(1, 98) = .05, p = .83$
Heredity	$F(1, 98) = .66, p = .42$
Life Event	$F(1, 98) = 4.55, p = .04$
Stress at Work	$F(1, 98) = .11, p = .74$
Supernatural Causes	$F(1, 98) = 21.08, p < .001$
A Broken Home	$F(1, 98) = .77, p = .38$
Lack of Parental Affection	$F(1, 98) = .08, p =. 77$
Unconscious Conflict	$F(1, 98) = .00, p = .98$
Lack of Will Power	$F(1, 98) = 1.69, p = .20$
Alcohol Abuse	$F(1, 98) = 1.19, p = .28$
Immoral Life Style	$F(1, 98) = 4.62, p = .03$

Table R5.

Skewness, Kurtosis and K-S Test Values for Transformed Data for Items on the Perception of Causes Questionnaire

Perceived Cause	Type of Transformation	British			Pakistani		
		Skewness *(SE)*	Kurtosis *(SE)*	K-S Test	Skewness *(SE)*	Kurtosis *(SE)*	K-S Test
Brain Disease	Logarithm	-0.43 (0.33)	-0.67 (0.64)	*p < .001*	-0.71 (0.35)	-0.68 (0.69)	*p < .001*
Brain Disease	Square Root	-0.02 (0.33)	-0.87 (0.64)	*p < .001*	-0.36 (0.35)	-0.89 (0.69)	*p < .001*
Brain Disease	Reciprocal	1.17 (0.33)	0.25 (0.64)	*p < .001*	1.22 (0.35)	-0.06 (0.69)	*p < .001*
Heredity	Logarithm	-0.53 (0.33)	-0.68 (0.64)	*p < .001*	-1.03 (0.35)	-0.29 (0.69)	*p < .001*
Heredity	Square Root	-0.14 (0.33)	-0.94 (0.64)	*p < .001*	-0.73 (0.35)	-0.56 (0.69)	*p < .001*
Heredity	Reciprocal	1.22 (0.33)	0.27 (0.64)	*p < .001*	1.39 (0.35)	0.20 (0.69)	*p < .001*
Life Event	Logarithm	-2.10 (0.33)	6.17 (0.64)	*p < .001*	-1.97 (0.35)	4.07 (0.69)	*p < .001*
Life Event	Square Root	-1.61 (0.33)	3.93 (0.64)	*p < .001*	-1.46 (0.35)	1.86 (0.69)	*p < .001*
Life Event	Reciprocal	3.12 (0.33)	11.63 (0.64)	*p < .001*	3.16 (0.35)	10.65 (0.69)	*p < .001*

Stress at Work	Logarithm	-1.68	2.42	$p < .001$	-1.81	3.57	$p < .001$
		(0.33)	(0.64)		(0.35)	(0.69)	
Stress at Work	Square Root	-1.27	0.96	$p < .001$	-1. 21	1.69	$p < .001$
		(0.33)	(0.64)		(0.35)	(0.69)	
Stress at Work	Reciprocal	2.63	6.96	$p < .001$	2.84	7. 83	$p < .001$
		(0.33)	(0.64)		(0.35)	(0.69)	
Supernatural Causes	Logarithm	0.95	-0.69	$p < .001$	-0.35	-1.42	$p < .001$
		(0.33)	(0.64)		(0.35)	(0.69)	
Supernatural Causes	Square Root	1.19	-0.10	$p < .001$	-0.09	-1.36	$p < .001$
		(0.33)	(0.64)		(0.35)	(0.69)	
Supernatural Causes	Reciprocal	-0.76	-1.31	$p < .001$	0.68	-1.37	$p < .001$
		(0.33)	(0.64)		(0.35)	(0.69)	
A Broken Home	Logarithm	-1.86	3.43	$p < .001$	-1.03	0.83	$p < .001$
		(0.33)	(0.64)		(0.35)	(0.69)	
A Broken Home	Square Root	-1.39	1.66	$p < .001$	-0.56	-0.25	$p < .001$
		(0.33)	(0.64)		(0.35)	(0.69)	
A Broken Home	Reciprocal	2.85	8.16	$p < .001$	2.13	4.76	$p < .001$
		(0.33)	(0.64)		(0.35)	(0.69)	
Lack of Parental Affection	Logarithm	-0.85	- 0.3	$p < .001$	-1.16	1.43	$p < .001$
		(0.33)	(0.64)		(0.35)	(0.69)	

Lack of Parental Affection	Square Root	-0.57	-0.85	$p < .001$	-0.65	0.02	$p < .001$
		(0.33)	(0.64)		(0.35)	(0.69)	
Lack of Parental Affection	Reciprocal	1.92	5.89	$p < .001$	2.47	7.27	$p < .001$
		(0.33)	(0.64)		(0.35)	(0.69)	
Unconscious Conflict	Logarithm	-1.29	2.56	$p < .001$	-1.54	2.05	$p < .001$
		(0.33)	(0.64)		(0.35)	(0.69)	
Unconscious Conflict	Square Root	-0.74	0.56	$p < .001$	-1.06	0.84	$p < .001$
		(0.33)	(0.64)		(0.35)	(0.69)	
Unconscious Conflict	Reciprocal	3.03	13.34	$p < .001$	2.35	4.78	$p < .001$
		(0.33)	(0.64)		(0.35)	(0.69)	
Lack of Will Power	Logarithm	-0.50	-0.80	$p < .001$	-0.90	-0.01	$p < .001$
		(0.33)	(0.64)		(0.35)	(0.69)	
Lack of Will Power	Square Root	-0.32	-0.98	$p < .001$	-0.69	-0.32	$p < .001$
		(0.33)	(0.64)		(0.35)	0.69)	
Lack of Will Power	Reciprocal	1.18	0.20	$p < .001$	1.62	1.53	$p < .001$
		(0.33)	(0.64)		(0.35)	(0.69)	
Alcohol Abuse	Logarithm	-1.16	1.28	$p < .001$	-1.43	1.34	$p < .001$
		(0.33)	(0.64)		(0.35)	0.69)	
Alcohol Abuse	Square Root	-0.67	0.02	$p < .001$	-0.99	0.38	$p < .001$
		(0.33)	(0.64)		(0.35)	(0.69)	
Alcohol Abuse	Reciprocal	2.31	5.86	$p < .001$	2.10	3.30	$p < .001$
		(0.33)	(0.64)		(0.35)	(0.69)	
Immoral Life Style	Logarithm	-0.37	-1.34	$p < .001$	-1.64	3.95	$p < .001$
		(0.33)	(0.64)		(0.35)	(0.69)	

Immoral Life Style	Square Root	-0.12	-1.35	$p < .001$	-0.90	1.42	$p < .001$
		(0.33)	(0.64)		(0.35)	(0.69)	
Immoral Life Style	Reciprocal	0.74	-1.18	$p < .001$	3.20	11.49	$p < .001$
		(0.33)	(0.64)		(0.35)	(0.69)	

R.4 Twenty Statements Test

Histogram

for Culture= British

Mean =0.86
Std. Dev. =0.154
N =54

Histogram

for Culture= Pakistani
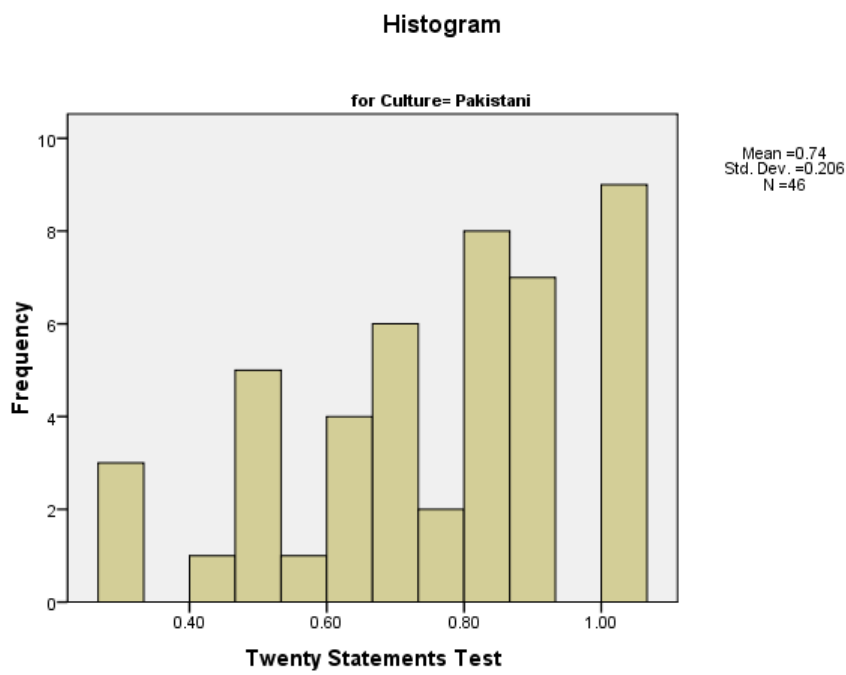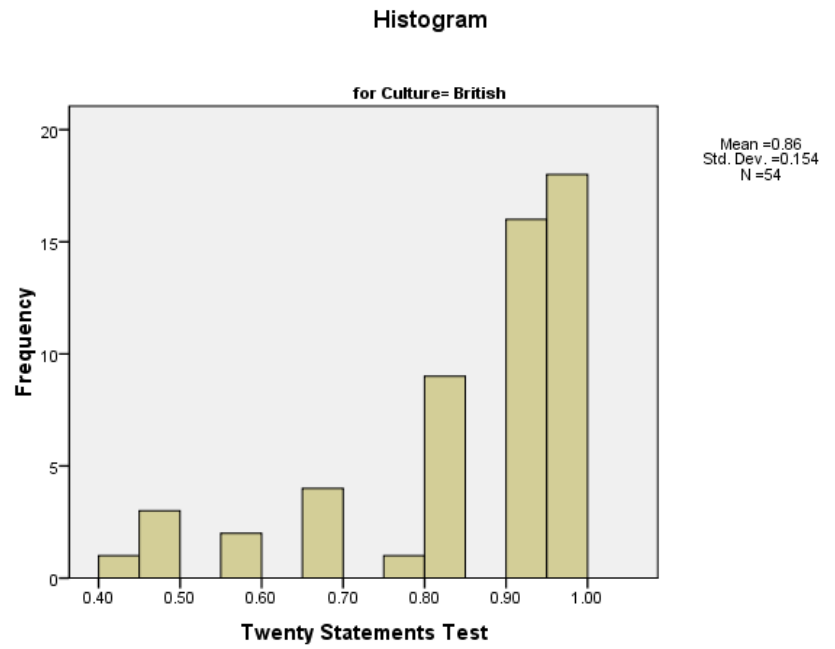
Mean =0.74
Std. Dev. =0.206
N =46

Table R6.

Skewness, Kurtosis and K-S Test Values for Transformed Data of the Twenty Statements Test

Type of Transformation	British			Pakistani		
	Skewness *(SE)*	Kurtosis *(SE)*	K-S Test	Skewness *(SE)*	Kurtosis *(SE)*	K-S Test
Logarithm	-1.72 (0.33)	2.83 (0.64)	$p < .001$	-1.23 (0.35)	1.09 (0.69)	$p < .001$
Square Root	-1.47 (0.33)	1.80 (0.64)	$p < .001$	-0.88 (0.35)	0.16 (0.69)	$p < .001$
Reciprocal	2.31 (0.33)	5.75 (0.64)	$p < .001$	1.98 (0.35)	3.75 (0.69)	$p < .001$

Appendix S: Participants' Index Scores on the Level of Contact Report

Level of Contact	British	Pakistani
(Least to Most)	*N*	*N*
1. I have never observed a person with a problem like Sam's	5	2
2. I have observed a person who has a problem like Sam's	0	2
3. I have watched a movie or television show involving a character with a problem like Sam's	3	9
4. I have watched a TV documentary about a person who has a problem like Sam's	18	9
5. I have observed a person who has a problem like Sam's	7	2
6. I have been in a class with a person who has a problem like Sam's	9	2
7. A friend of my family has a problem like Sam's	5	11
8. I have a relative who has a problem like Sam's	4	9
9. I live with someone with a problem like Sam's	1	0
10. I have a problem like Sam's	2	0

Appendix T: Supplementary Analyses

T.1 Twenty Statements Test

Table T1

Correlations between Twenty Statements Test (TST) and Key Variables Investigated in the Study

Variables	Correlation
TST and Social Distance Scale	$r_s = .04, p = .71$
TST and Devaluation-Discrimination Measure	$r_s = .00, p = .99$
TST and Labelling	$r_s = .09, p = .36$
TST and Level of Contact Report	$r_s = -.21, p = .04$
TST and Brain Disease	$r_s = .03, p = .77$
TST and Heredity	$r_s = -.07, p = .48$
TST and Life Event	$r_s = .13, p = .19$
TST and Stress at Work	$r_s = .02, p = .82$
TST and Supernatural Causes	$r_s = -.25, p = .01$
TST and A Broken Home	$r_s = -.00, p = .99$
TST and Lack of Parental Affection	$r_s = .02, p = .85$
TST and Unconscious Conflict	$r_s = .01, p = .91$
TST and Lack of Will Power	$r_s = -.14, p = .16$
TST and Alcohol Abuse	$r_s = .13, p = .20$
TST and Immoral Life Style	$r_s = -.15, p = .15$

T.2 Social Distance Scale

Table T2

Correlations between the Social Distance Scale (SDS) and Key Variables Investigated in the

Study for British and Pakistani Participants'

Variables	Correlation
SDS and Labelling (British participants)	$r_s = .28, p = .04$
SDS and Labelling (Pakistani participants)	$r_s = -.12, p = .43$
SDS and Level of Contact Report (British participants)	$r_s = -.07, p = .61$
SDS and Level of Contact Report (Pakistani participants)	$r_s = -.19, p = .20$
SDS and Brain Disease (British participants)	$r_s = .26, p = .06$
SDS and Heredity (British participants)	$r_s = .07, p = .59$
SDS and Life Event (British participants)	$r_s = -.09, p = .52$
SDS and Stress at Work (British participants)	$r_s = -.12, p = .39$
SDS and Supernatural Causes (British participants)	$r_s = -.20, p = .16$
SDS and A Broken Home (British participants)	$r_s = -.07, p = .64$
SDS and Lack of Parental Affection (British participants)	$r_s = -.06, p = .67$
SDS and Unconscious Conflict (British participants)	$r_s = -.04, p = .76$
SDS and Lack of Will Power (British participants)	$r_s = -.14, p = .32$
SDS and Alcohol Abuse (British participants)	$r_s = -.05, p = .71$
SDS and Immoral Life Style (British participants)	$r_s = .14, p = .33$

SDS and Brain Disease (Pakistani participants)	$r_s = .01, p = .93$
SDS and Heredity (Pakistani participants)	$r_s = .04, p = .82$
SDS and Life Event (Pakistani participants)	$r_s = .21, p = .17$
SDS and Stress at Work (Pakistani participants)	$r_s = .14, p = .35$
SDS and Supernatural Causes (Pakistani participants)	$r_s = .30, p = .04$
SDS and A Broken Home (Pakistani participants)	$r_s = .11, p = .48$
SDS and Lack of Parental Affection (Pakistani participants)	$r_s = -.03, p = .84$
SDS and Unconscious Conflict (Pakistani participants)	$r_s = .04, p = .78$
SDS and Lack of Will Power (Pakistani participants)	$r_s = .05, p = .72$
SDS and Alcohol Abuse (Pakistani participants)	$r_s = .12, p = .42$
SDS and Immoral Life Style (Pakistani participants)	$r_s = .02, p = .91$