Research into general attitudes towards depression and two types of treatments for depression: a comparison of South Asian and White British participants

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ABSTRACT

Background

Previous research indicates perceived cultural stigma regarding depression affects help seeking behaviour. This study investigated whether differences occurred in attitudes towards two types of treatments for depression (drug therapy versus counselling) between White British (WB), South-Asian Migrants (SAM) and British South-Asian (BSA) participants.

Method

A 2x3 mixed factorial quasi-experimental design was used. The independent variable was type of depression (transient or chronic). The categorical variable was participants' culture. The dependant variable was participants' attitudes. Participants (*N* = 126) were recruited through either a snowball or opportunity sample; and were issued with an online survey consisting of depression vignettes. Data was measured in terms of four components: 'attitudes towards talking therapy'; 'how participant would react in same position'; 'attitudes towards weakness' and 'attitudes towards medication'.

Results

WB and BSA participants had more positive attitudes towards counselling, whilst SAM's had similar attitudes towards both treatments. All participants had higher scores for medication when depression was chronic, and all participants differed in 'attitudes towards weakness'. WB and BSA participants had previous mental health knowledge, whereas SAM's had little to no previous knowledge.

Conclusion

Results opposed previous literature, which could be due to the amount of prior knowledge held by participants.

KEY WORDS:	DEPRESSION	VIGNETTES	CULTURE	MENTAL HEALTH	DEPRESSION TREATMENTS

Introduction

DSM 5 (American Psychiatric Association, 2013) describes depression as a mental disorder affecting emotions, thoughts and behaviours. It primarily causes constant feelings of despondence, pessimism, and apathy towards activities that were previously enjoyed by the individual (American Psychiatric Association, 2013). Worldwide, it is a highly common mental illness, affecting all individuals regardless of cultural background (Kleinman, 2004; Lippincott Williams and Wilkins, 2009). Some discrepancies exist regarding attitudes towards depression in different cultures; with some viewing depression as a serious mental illness requiring treatment, and others viewing depression as a somewhat harmless mentality resulting from everyday stresses (Bowers, 2003). Therefore, it would be expected that variance would also exist regarding attitudes towards appropriate treatment options for depression between different cultures.

Previous Literature

In order to observe mental health attitudes in a cross-cultural sample, Jorm et al. (2005) conducted domestic interviews relating to four mental health vignettes. Two vignettes described someone suffering from depression (one describing depression with suicidal thoughts); and the other two vignettes described schizophrenia, either transient or chronic. The participants were recruited from both an individualistic: Australia (*N* = 3998), and a collectivist society: Japan (*N* = 2000). Results demonstrated Japanese participants were more cautious in using psychiatric labelling, particularly in regards to the depression vignettes. They seemed to have strong beliefs in counsellors over GPs, yet still demonstrated hesitancy in discussing mental health issues with anyone outside of the family. Contrastingly, Australian participants showed comfortableness in utilising psychiatric labelling, and displayed optimism towards professional help from both GPs and counsellors. Therefore, this study is effective in demonstrating how attitudes differ between individualistic and collectivist cultures, particularly in reference to labelling of, and treatment options for mental health issues. However, this study was a field study, and therefore lacks control over extraneous variables, which may have biased or confounded the results (McLeod, 2012). Furthermore, as the study was conducted in two separate countries, some language barriers or translation errors may have occurred when conducting the interviews, again confounding the results (Tsai et al., 2004). This means the study may lack construct validity and internal reliability, as the study may not accurately measure what it intended to measure (Elmes, Kantowitz and Roediger, 2011).

Focussing on a more variety of ethnicities, Givens et al. (2007) conducted a study observing discrepancies in attitudes towards treatment preferences and stigma associated with depression within these cultural groups. The researchers utilised an online cross sectional survey in order to observe attitudes towards depression; stigma towards depression; and treatment preferences for depression, alongside the Centre for Edipemiological Studies Depression (CES-D) Scale (Radloff, 1977) to measure depressive symptoms. A multivariable regression model was also used to collect participant demographic information. Results indicated ethnic minorities were more inclined towards counselling over medication, and generally disbelieved biological theories of the causes of depression. Ethnic minorities also considered

antidepressant medication as creating drug addiction or dependence, whilst believing counselling and prayer collectively created the most effective treatment option for mental health issues. Contrastingly, White participants were more likely to indicate preferences for medication than ethnic minorities. Through this study, Givens et al. (2007) were effective in exhibiting the discrepancies occurring regarding general attitudes towards depression among differing ethnicities. Furthermore, the study suggests potential problems arising when ethnic minorities try to seek help for mental illnesses due to these differing attitudes between cultures. Utilisation of the CES-D scale improves the dependability of this study, as the CES-D scale has been recognised as a valid and reliable established scale, and is used in a variety of different countries and cultures (Morin et al., 2011). However, recruiting participants who have suffered from depression in the past may breed a variety of ethical issues, especially if the study reminds participants of the emotional difficulties they endured during their illness and recovery process; thus resulting in psychological harm to participants (Acton, 2013).

A further study observing cultural affects on stigma relating to treatment of depression is one conducted by Bellamy et al. (2007). A cross-sectional survey was conducted on both African-American and White primary care patients (N = 499) in order to observe attitudes towards perceived appropriateness of four various types of depressive treatments: medication; psychiatric counselling; herbal remedies and spiritual counselling. Vignettes were used to assess participants' attitudes, followed by questions asking participants whether they thought they would: feel ashamed; feel comfortable telling friends and family; feel okay if people in their community knew; and not want people at work to know about each treatment. Information about social demographics, depression history and current depressive symptoms were also collected from each participant. Findings indicated stigma for herbal remedies were lower than for medication or psychiatric counselling. Furthermore, stigma was lower in African Americans than for Whites for all treatment options, and psychiatric counselling was associated with lower acceptability when associated with stigma from friends and family. Researchers concluded stigma related to depressive treatments significantly affected perceived acceptability of psychiatric counselling, but not medication; indicating how mental health professionals could address this issue in order to enhance attitudes towards mental health treatments. However, limitations exist within this study, such as only four questions were asked to participants regarding each vignette. A wider array of questions may have provided more detailed responses, improving the study by indicating how institutes could address stigma towards depression in order to increase comfortableness when seeking professional help for mental health issues.

Based on UK residents, Sheikh and Furnham (2000) conducted a study aiming to assess whether a link existed between culturally specific beliefs about causes of mental health problems, and help seeking behaviour. UK participants (N = 287) were recruited from three different ethnic groups: British Asian, Western European and Pakistani. Participants were administered with two questionnaires: the Mental Distress Explanatory Model Questionnaire (Eisenbruch, 1990); and the Orientations to Seeking Professional Help Questionnaire (Fischer and Turner, 1970). Demographic data sheets were also administered regarding beliefs about causes of mental illness. Beliefs about causes of mental illnesses were predictors of help seeking behaviour for both the British Asian and Pakistani group, but not for the Western European group. Therefore, this study demonstrates how cultural beliefs

about causation of mental illnesses affect help seeking behaviour, particularly for Asian participants; contributing to the argument that negative stigma towards mental health and its treatments need to be addressed to create positive attitudes towards help seeking for sufferers of mental illness. Regardless, the questionnaire measures used in this study could be considered out-dated due to the time of development of these measures; and therefore may be measuring attitudes that are no longer relevant. Therefore, the study may need to be replicated with more contemporary attitude measures in order to establish current attitudes held by UK residents.

Assessing how attitudes towards depression and its treatment outline the prospect of seeking help for depression and adhering to the treatment; Isaac, Greenwood and Benedetto (2012) conducted a study comparing Australian participants with Canadian participants (*N* = 203), some of who had previously been diagnosed with depression. They utilised 25 items from the Attitudes Towards Depression and its Treatment Scale (ATDT) (Gabriel and Violato, 2010), which is a 27-item scale (see appendix 11) measuring attitudes towards depression and treatments in individuals who have currently or previously suffered from depression. Items were separated into four subcategories: attitude towards the illness; attitude towards biological treatments; attitude towards psychological treatment; and attitudes towards professional help (Isaac, Greenwood and Benedetto, 2012). Results demonstrated discrepancies in attitudes between cultural groups. Australian participants demonstrated less shame in suffering from depression, as well as being more prone to consume antidepressants and contemplate psychotherapy. The Australian sample was also more likely to pursue professional help for depression than the Canadian sample. Researchers concluded Australian participants had more positive attitudes towards depression and its treatment as measured by the ATDT compared to the Canadian sample. This study demonstrates how attitudes differ towards depression and its treatment between all cultures, regardless of being individualistic or collectivist, as this study focussed on two individualistic cultures with differing attitudes. However, this study is highly limited, as the Canadian sample recruited was heavily homogenised, as all Canadian participants were diagnosed with depression, and were all receiving treatment at the same treatment centre (Isaac, Greenwood and Benedetto, 2012). Therefore, the centre they were attending may have biased all of their views, and thus the results are not representative of the Canadian population on the whole (Jarvis, Russell and Gorman, 2004).

Aims and Objectives

The objective of this research study was to observe whether cultural differences accompanying perceived societal acceptance of mental disorders affect attitudes towards depression and its treatments within these cultural groups. The research aimed to investigate whether a difference occurred in attitudes towards two types of treatments for depression (drug therapy versus talking therapy (counselling)), and whether theses attitudes, alongside attitudes towards depression, differ in South-Asian participants (both BSA and SAM) compared to WB participants, all currently residing in the UK.

The research question for this study was: how do attitudes differ between South-Asian and WB participants towards depression and two types of depressive treatments: drug therapy versus counselling?

Established through previous research, the hypothesis for this study was: culture would affect attitudes towards depression, in that South-Asian participants (particularly SAM) would prefer counselling as the treatment method, whilst believing mental illness demonstrated weakness; and WB participants would display an equal preference to both treatment methods without indicating a belief in weakness.

Method

Design

This study used a quantitative 2x3 mixed factorial quasi-experimental design. It was quasi-experimental due to devising three types of variables: an independent variable, a dependant variable, and a categorical variable. The independent variable was the type of depression: transient (short-term) or chronic (long-term). The categorical variable was the cultural background of the participant: WB, BSA, or SAM. The dependant variable was general attitudes towards depression and depressive treatments displayed by participants on a survey. A 2x3 mixed factorial design was used due to the 2 levels of the independent variable requiring a repeated measures design, as all participants provided responses for both types of depression; and the 3 levels of the categorical variable requiring an independent group design, as each participant can only belong to one category. Therefore, using both within-subjects variables (repeated measures) and between-subject variables (independent groups) led to the design being mixed factors (Dewbury, 2004; Goodwin, 2010; Myers and Hansen, 2011).

Participants

126 participants were recruited: 45 WB, 50 BSA and 31 SAM; in order to conduct a study with strong statistical power (Kelley et al., 2003; Ross et al. 1999). 127 participants were originally recruited, however one had to be removed as they had not provided full informed consent to participate. Participants were recruited through either the Manchester Metropolitan University research participation pool (an opportunity sample), or participants were sent the survey link via email or text message and asked to forward the link to others on completion of the survey (snowball sample). Participants were recruited this way as the participation pool offered a reward in the form of points to the participants, therefore increasing the incentive to participate; whilst sending participants the link through a snowball sample allowed them to easily access and complete the survey on devices they already had at hand. Using both of these samples allowed a larger diversity of participants to be used (Reisberg, 2013), whilst allowing access to people that may not have been available to the researcher otherwise (Sappleton, 2013). This allowed more variety in participant demographics (Reisberg, 2013); and allowed a more balanced number of participants from each cultural background.

Materials/Apparatus/Measures

The only materials used in this study was the online survey created on a programme called '*Qualtrics*' in order to create a survey that would be compatible will all devices that the participants may have used to access the survey. The survey was the only material administered to participants, and it contained all the relevant documents within the survey (see Appendix 8).

The survey mainly consisted of two vignettes followed by a series of 19 statements. The vignettes were both different, in order to observe whether attitudes towards depression differed in participants when depression was transient (short-term) or chronic (long-term). The first vignette described transient depression, and the person in the vignette was referred to as 'Adam'. The second vignette described chronic depression, referring to 'Hannah'. These names were chosen because they were culturally neutral, as both names are common in both British and South-Asian cultures. This was important as participants may have had biases towards the type of person in the vignette, for example they may have been more sympathetic to the person in the vignette if they perceived them as being from the same cultural background as themselves, or vice versa (Hewstone, Rubin and Willis). One male and one female were also used in order to attempt to reduce any gender biases participants may have had regarding depression and its treatments.

The vignettes depicted a fictional person suffering from either transient or chronic depression, and the information in the vignettes were constructed by the researcher using the DSM 5 (American Psychiatric Association, 2013) classification of depression to construct a case study based on the symptoms listed. This was done to ensure the vignettes accurately described depression as formally classified, therefore ensuring strong internal reliability (Plante, 2011) (see Appendix 6).

Following each vignette, the survey presented participants with a list of 19 statements relating to each of the vignettes. The statements were all constructed by adjusting some of the items on the ATDT scale (Gabriel and Violato, 2010), as the scale measured attitudes held by current depression sufferers, and this study was measuring attitudes held by the general public. Four initial categories of statements were developed, which were modified from the categories used in the Isaac, Greenwood and Benedetto (2012) study. These initial categories were: attitudes towards GPs/medication; attitudes towards counselling; attitudes towards talking in general and general attitudes towards depression (see appendix 9). Each of the statements were accompanied by a 5-point likert scale, indicating the extent to which participants agreed or disagreed with the statements, with 1 being strongly disagree; 2 = disagree; 3 = neither agree nor disagree; 4 = agree; and 5 being strongly agree.

Procedure

An application for ethical approval form was first submitted to Manchester Metropolitan University's ethical committee board, in order to ensure the proposed plans for the study were suitable and ethically appropriate in order to reduce any deception or psychological or physical harm that could come to participants (see Appendix 1).

A survey was then constructed online using *Qualtrics Survey Software*. The survey was launched and distributed to participants, either by sending them the link via email or text message, or by placing the survey link onto the Manchester Metropolitan University research participation pool. Accompanying the survey link was an invitation to participate (see Appendix 2), briefly informing participants about the study. Once participants pressed the link, they were presented with the participant information sheet (see Appendix 3) in order to ensure participants had all the information they needed to be able to provide full informed consent. The consent form was issued to participants in the survey following the briefing information, and

participants were informed that they could not continue with the survey if they did not answer yes to all of the statements in the consent form (see Appendix 4).

Once participants had provided full informed consent, they were issued with a few demographic questions. The first question asked them which cultural background they belonged to. Their options were: WB, BSA, SAM, or Other. If participants chose 'other', they would have been unable to continue with the survey, as their responses would have been irrelevant in terms of the research aims. The second demographic question asked about the participants' age, ranging from 18 to over 70. The final set of demographic questions asked participants how much knowledge they had regarding mental health, with options being: I have studied mental health or I have worked as a mental health professional; I have had some kind of personal experience with mental health; I have not studied mental health, but have some kind of knowledge about it; and I have previous knowledge regarding mental health. These questions were of importance as the research was aiming to obtain participants that had a variety of previous knowledge. It also allowed previous knowledge to be compared between the cultural backgrounds.

Participants were then asked to read one of the vignettes (either Adam or Hannah were presented first), and then use the likert scale to indicate whether they agreed or disagreed to the statements about the vignette. Once all 19 statements had been responded to, participants were asked to repeat the process with the second vignette. The vignettes were presented to the participants in different orders, which were randomly assigned to each participant when they followed the survey link. This was done in attempt to counterbalance the questions; ensuring order effect did not contribute to the pattern of responses observed (Kantowitz, Roediger, and Elmes, 2014).

Once participants had responded to all statements relating to both vignettes, they were presented with debriefing information informing them of the full aims of the research; how to get in touch with the researcher if required; organisations they could contact if they required psychological support following participation; and how to create a unique anonymous personal code in order to be able to withdraw from the study if they chose to at a later date, whilst still remaining anonymous (see Appendix 5). This marked the end of the survey, and the responses were then recorded through *Qualrtics*. Participants who were recruited through the participation pool were issued with 15 points once they completed the study, and those who were recruited using the snowball sample were asked to forward the survey link to others.

Results

Factor Analysis and Reliability Tests

Firstly, exploratory factor analysis was conducted to test whether the initial categories of scoring were supported by the participants' pattern of answers. The data was analysed by means of a principal component analysis, with orthogonal (varimax) rotation. The various indicators of factorability were good, and the factor analysis produced similar categories to the initial categories used. Four components with an eigenvalue considerably greater than the Kaiser criterion of 1.0 were found; the scree plots also indicated four components. The components were labelled as: component

1 – attitudes toward talking therapy ('talking'); component 2 – how participant would act if they were in the position of the person in the vignette ('position'); component 3 – attitudes towards weakness ('weakness'); and component 4 – attitudes towards GPs or medication ('medication'). The component loadings are shown in Table 1. For a full list of statements in each category, see appendix 10.

Table 1.
Summary of the components found by the principal component analysis with Varimax Rotation, and the (summarised) statements that load on them

	Component 1	Component 2	Component 3	Component 4	Communality
1. something wrong with physical health				.42	.28
2. something wrong with psychological health	.62				.47
3. requires some help	.73				.61
4. needs to see GP				.50	.26
5. needs to see counsellor	.70				.67
6. needs to talk to somebody	.71				.58
7. medication likely to help				.65	.44
8. counsellor likely to help	.77				.62
9.talking to family/friends likely to help	.68				.56
10. If friend, advise GP				.71	.64
11. If friend, advise counselling	.64				.55
12. If me, would feel comfortable talking to family		.82			.69
13. if me, comfortable talking to friends		.85			.77
15. If me, comfortable visiting counsellor		.59			.58
16. If me, try to tell somebody		.68			.51
17. Would not seem weak for seeing GP			.85		.77
18. Would not seem weak for seeing counsellor			.89		.88
19. Does not seem weak			.85		.78
20. If friend, comfortable talking to them about emotions					.59
Eigenvalues	5.30	2.72	2.23	1.67	
Percentage Variance before Rotation	26.47	13.60	11.14	8.36	
Percentage Variance with Rotation	21.53	13.63	12.80	11.62	

As can be seen from Table 1, one of the statements (statement 14) is not included in the table, as it was loaded on to two different components, and therefore this statement was removed from the data set. To view the principle component analysis table with statement 14 included, see appendix 12.

Following this, a test of reliability was conducted to observe whether components and their loadings had internal reliability. Component 1 – 'talking'; component 2 – 'position' and component 3 – 'weakness' all had Cronbach's alpha values above 0.7; and thus were considered internally reliable if an alpha value of 0.7 is to be considered the baseline alpha value for internal reliability (Nunnally, 1978). Component 4 – 'medication' had a Cronbach's alpha value below 0.7, and thus cannot be considered internally reliable. Table 2 summarises the Cronbach's alpha values for all of the components.

Table 2.
Cronbach's Alpha values for all four of the components

Measures/Components	*Number of Items on Scale*	Cronbach's Alpha [95% CI]
Attitudes towards talking therapy	7	.85 [.38, .53]
How participant would act if they were in the position of the person in the vignette	4	.75 [.33, .52]
Attitudes towards weakness	3	.88 [.64, .78]
Attitudes towards GPs/medication	4	.52 [.12, .31]

Note. N = 126. CI = Confidence Interval.

Response format for each item on the values measures ranges from 1 (strongly disagree) to 5 (strongly agree), with 3 indicating 'neither agree nor disagree'. High scores indicate more positive attitudes towards all of the categories/components, and thus high scores for all of the categories indicate positive attitudes towards depression and its treatments.

The statements for each component were then added together in order to obtain a scale score (mean score for all items in the component categories) for each of the participants.

Normal Distribution

The data was analysed to see if results were normally distributed, to confirm results met parametric assumptions. Using the Shapiro-Wilk test of normality, results indicated that for transient depression for the WB participants, one of the components/categories ('talking') were not statistically significantly different from normal; thus this component was considered to be approximately normally distributed. The rest of the components for WB participants were statistically

significantly different from normal, therefore cannot be considered normally distributed. For chronic depression, two of the categories ('weakness' and 'medication') were statistically significantly different from normal, therefore cannot be considered normally distributed. The other two components were not different from normal.

For the transient vignette for BSA participants, two of the components: 'position' and 'medication' were not statistically significantly different from normal, thus can be considered to have approximate normal distribution. The other two components: 'talking' and 'weakness' were statistically significantly different from normal, therefore cannot be considered normally distributed. For the chronic vignette, all of the components were statistically significantly different from normal, thus cannot be considered normally distributed.

For the transient vignette for SAM, only one of the components 'medication' was statistically significantly different from normal, therefore cannot be considered normally distributed. The rest of the components were not statistically significantly different from normal, therefore can be considered to have approximate normal distribution. For the chronic vignette, all of the components were not statistically significantly different from normal, thus can be considered normally distributed.

Table 3 summarises the results for the Shapiro-Wilk test of normality.

Table 3.
Summary of the Shapiro-Wilk test of normality for participants' attitudes towards all four components for both transient and chronic depression

		White British			British South-Asian			South-Asian Migrant		
		Skew	Kurt	*p*	Skew	Kurt	*p*	Skew	Kurt	*p*
Attitudes towards talking therapy	**Transient**	-1.63	-.663	.126	-1.625	5.668	**.000**	.490	.023	.237
	Chronic	-.179	-.994	.062	-1.412	3.849	**.000**	.373	-.496	.549
How participant would react if they were in the position of the person in the vignette	**Transient**	-.667	-.131	**.050**	.022	-.512	.374	-.326	-.374	.237
	Chronic	-.467	-3.17	.270	-.721	1.942	**.013**	-.411	-.771	.056
Attitudes towards weakness	**Transient**	-1.005	.137	**.000**	-.815	-.086	**.000**	.473	.508	.075
	Chronic	-1.260	1.175	**.000**	-1.121	1.802	**.000**	.236	-.152	.653
Attitudes towards GPs/Medication	**Transient**	-1.360	3.997	**.000**	-.528	.879	.093	-.799	.552	**.020**
	Chronic	-.991	1.960	**.012**	.221	-.637	**.044**	-.130	-.061	.394

Note. N = 126. *P* = significance level.

All *p* values that are .05 or below are considered statistically significantly different from normal, and therefore not normally distributed. These values have been highlighted in bold.

2x3 Mixed ANOVA's

A 2 (type of depression in vignette: transient or chronic) x3 (cultural background of participant: WB; BSA or SAM) mixed ANOVA was conducted to observe interactions between categories of statements for each type of depression (transient or chronic) and cultural background of participants. The following tables and figures demonstrate the means (*M*) and standard deviations *(SD)* of the ANOVA results.

Table 4.
Means and Standard Deviations for the interaction between culture and type of depression for the component 'attitudes towards talking therapy'

	White British		**British South-Asian**		**South-Asian Migrant**		**Overall**		
	M	*(SD)*	*M*	*(SD)*	*M*	*(SD)*	*M*	*(SD)*	*n*
Transient Depression	4.26	(.46)	4.13	(.61)	3.64	(.58)	4.05	(0.60)	124
Chronic Depression	4.34	(.61)	4.15	(.66)	3.56	(.68)	4.07	(0.67)	124

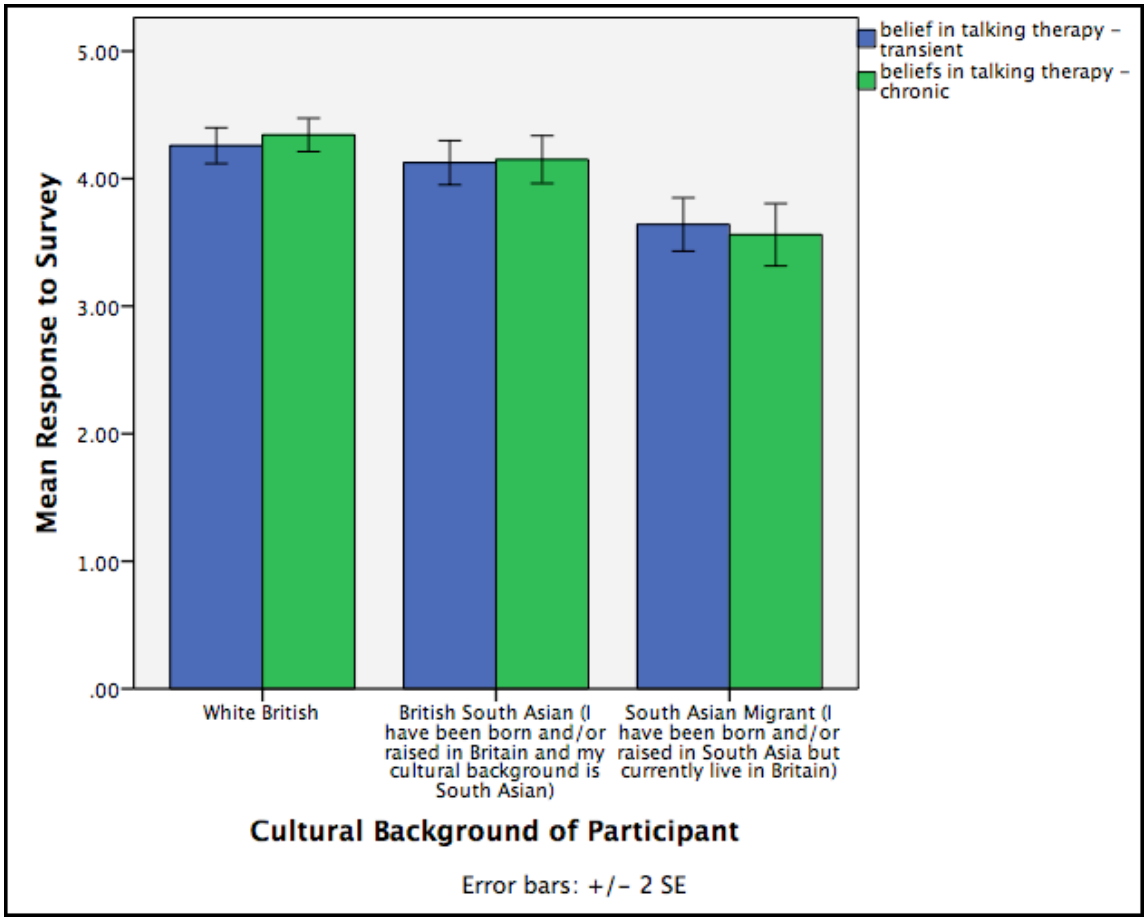

Figure 1. Graph to show the interaction between culture and participants mean response to the survey for both types of depression for the component 'attitudes towards talking therapy'

The 2x3 mixed ANOVA indicated there was no statistically significant main effect for 'talking' between the chronic and transient vignettes $F(1,121) = .142$, $p = .707$. There was a statistically significant main effect for 'talking' for the different cultural groups $F(2,121) = 14.87$, $p < .001$. There was a statistically significant interaction between cultural groups and type of vignette (transient versus chronic) $F(2,121) = 3.21$, $p = .044$.

A post-hoc test was conducted on 'talking' as a statistically significant interaction between cultural group and type of vignette was found. Employing the Tukey HSD test, statistically significant differences were found between SAM and both WB and BSA participants ($p < .001$ for both) for the transient vignette. No statistically significant difference was found between WB and BSA participants ($p = .343$).

The Tukey HSD test also found a statistically significant difference between SAM and both WB and BSA participants ($p < .001$ for both) for the chronic vignette. No statistically significant difference was found between WB and BSA participants ($p = .241$).

Table 5.
Means and Standard Deviations for the interaction between culture and type of depression for the component 'how participant would act if they were in the same position as the person in the vignette'

	White British		British South-Asian		South-Asian Migrant		Overall		
	M	*(SD)*	*M*	*(SD)*	*M*	*(SD)*	*M*	*(SD)*	*n*
Transient Depression	3.33	(.98)	3.57	(.79)	3.14	(.65)	3.34	(.85)	124
Chronic Depression	3.58	(.77)	3.53	(.76)	3.30	(.68)	3.49	(.74)	124

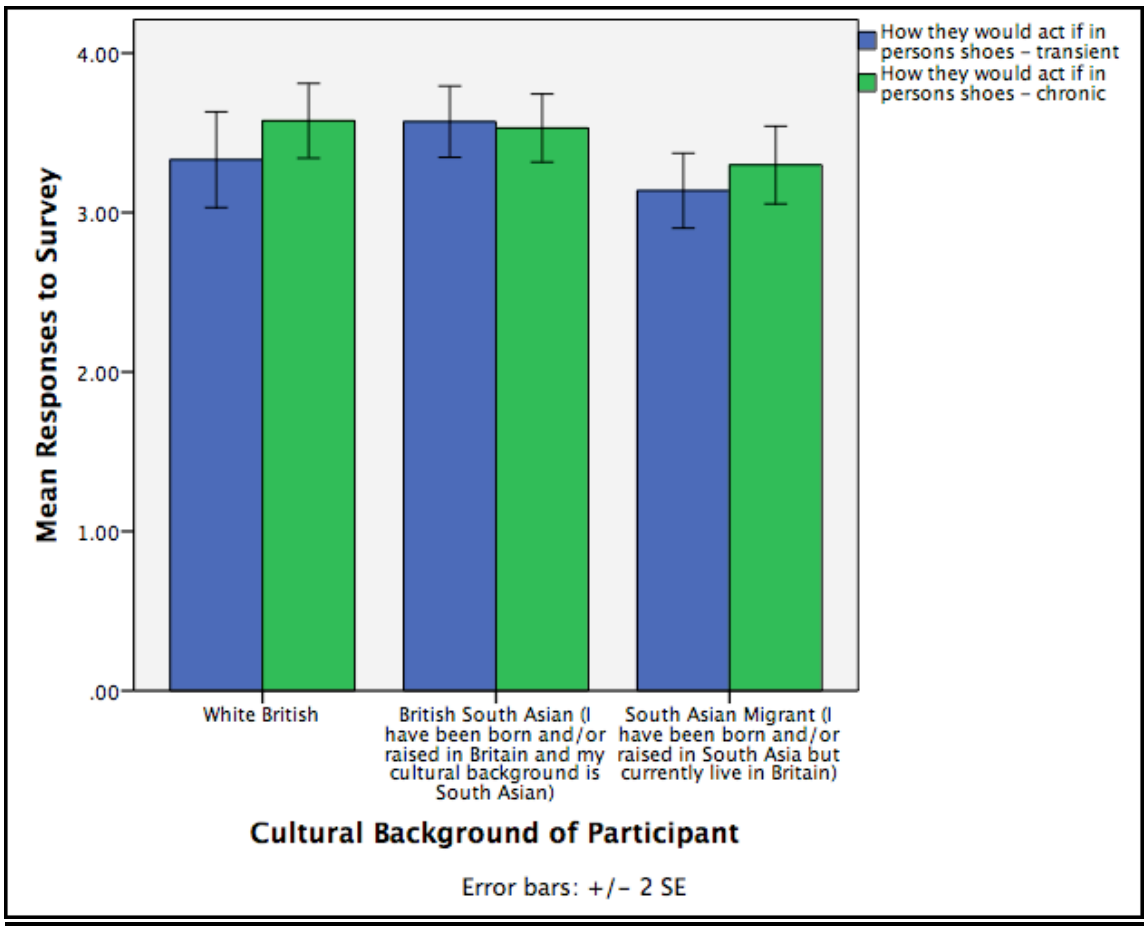

Figure 2. Graph to show the interaction between culture and participants mean response to the survey for both types of depression for the component 'how participant would react if they were in the same position as the person in the vignette'

The 2x3 mixed ANOVA indicated there was no statistically significant main effect for 'position' between the transient and chronic vignettes $F(1,121) = 2.92$, $p = .090$. There was no statistically significant main effect for 'position' for the different cultural

groups $F(2,121) = 2.27$, $p = .108$. There was no statistically significant interaction between cultural groups and type of vignette $F(2,121) = 1.63$, $p = .200$.

Table 6.
Means and Standard Deviations for the interaction between culture and type of depression for the component 'attitudes towards weakness'

	White British		British South-Asian		South-Asian Migrant		Overall		
	M	*(SD)*	*M*	*(SD)*	*M*	*(SD)*	*M*	*(SD)*	*n*
Transient Depression	4.53	(.59)	4.16	(.85)	3.20	(.86)	4.05	(.92)	124
Chronic Depression	4.64	(.49)	4.15	(.87)	3.02	(.82)	4.03	(.97)	124

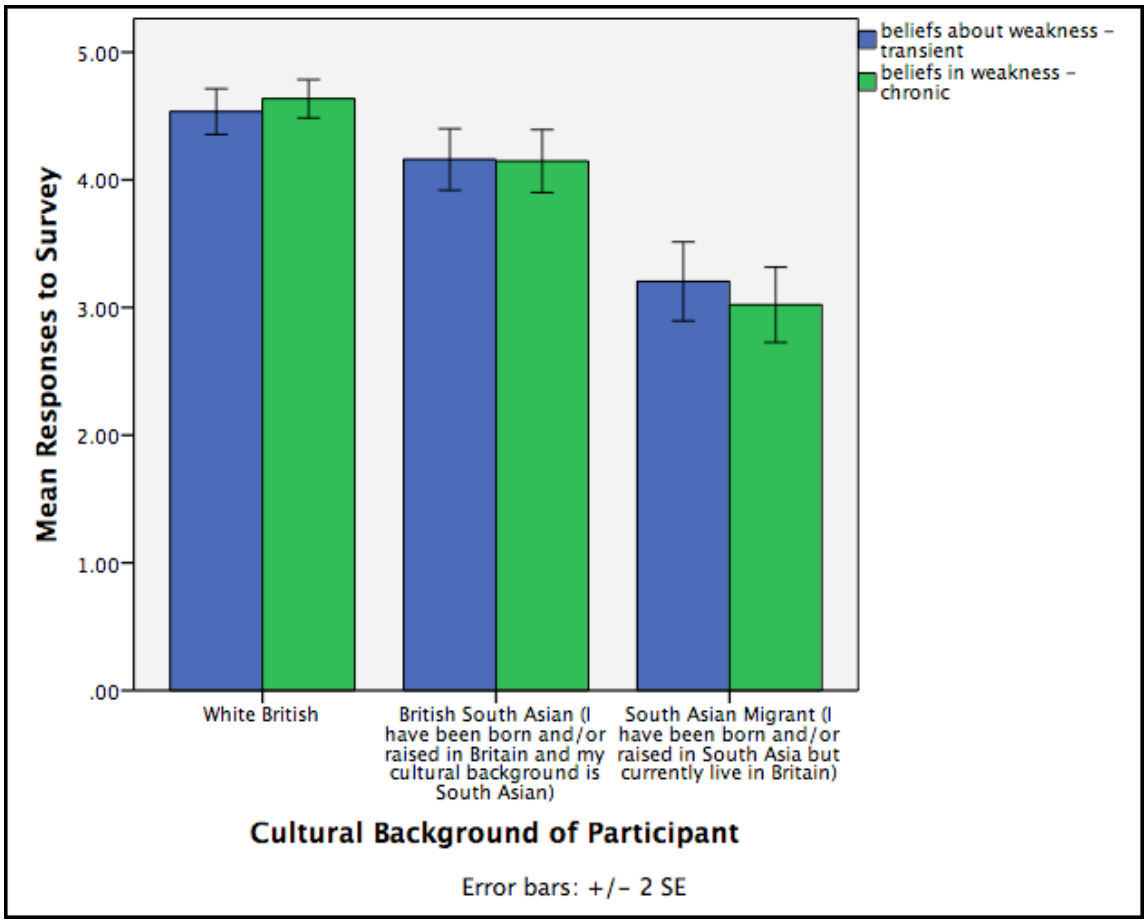

Figure 3. Graph to show the interaction between culture and participants mean response to the survey for both types of depression for the component 'attitudes towards weakness'

The 2x3 mixed ANOVA indicated there was no statistically significant main effect for 'weakness' between the transient and chronic vignettes $F(1,121) = .23$, $p = .630$. There was a statistically significant main effect for 'weakness' for the different cultural groups $F(2,121) = 44.68$, $p < .001$. There was no statistically significant interaction between cultural groups and type of vignette $F(2,121) = 1.40$, $p = .250$.

As a statistically significant main effect was found for 'weakness' for the different cultural groups, a post-hoc test was conducted to observe what this difference was. Employing the Tukey HSD test, statistically significant differences were found between results obtained by WB and BSA participants (p = .007). A statistically significant difference was also found between SAM and both WB and BSA participants' results (p < .001 for both).

Table 7.
Means and Standard Deviations for the interaction between culture and type of depression for the component 'attitudes towards GPs or Medication'

	White British		**British South-Asian**		**South-Asian Migrant**		**Overall**		
	M	*(SD)*	*M*	*(SD)*	*M*	*(SD)*	*M*	*(SD)*	*n*
Transient Depression	3.48	(.67)	3.53	(.76)	3.57	(.57)	3.52	(.68)	124
Chronic Depression	3.57	(.69)	3.58	(.72)	3.62	(.64)	3.59	(.68)	124

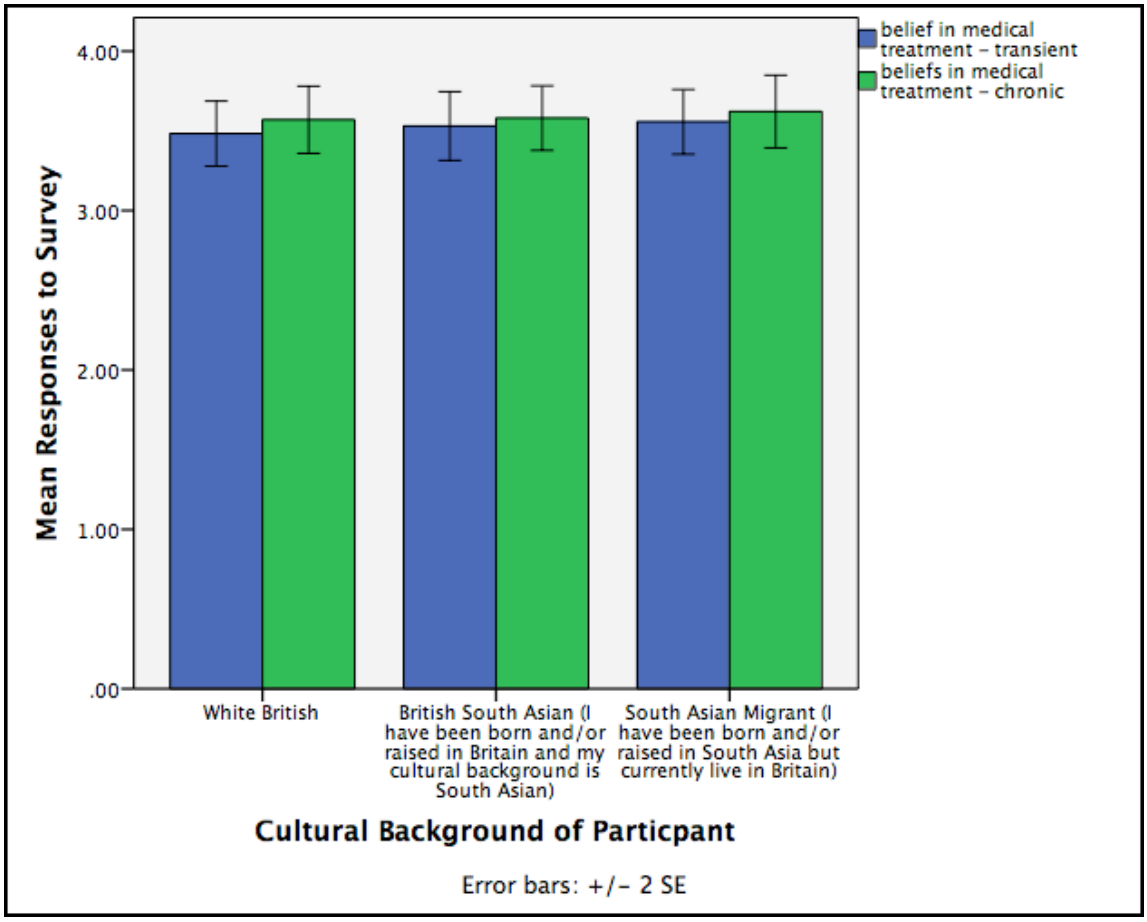

Figure 4. Graph to show the interaction between culture and participants mean response to the survey for both types of depression for the component 'attitudes towards GPs or Medication'

The 2x3 mixed ANOVA indicated there was no statistically significant main effect for 'medication' between transient and chronic vignettes $F(1,121) = 1.27$, $p = .261$. There was no statistically significant main effect for 'medication' for the different cultural groups $F(2,121) = .10$, $p = .908$. There was no statistically significant interaction between cultural groups and type of vignette $F(2,121) = .038$, $p = .963$.

Chi-Squared

A test of chi-squared was carried out to observe whether there was a difference in frequencies for the different cultural groups and the amount of previous knowledge they had regarding mental health. The test revealed a statistically significant relationship between culture and previous knowledge: $x^2(6, N = 126) = 60.558$, $p < .001$. The following table shows the frequencies for culture and previous knowledge.

Table 8.
Table to show the frequency of previous knowledge for the different cultural groups

		Previous Knowledge				
		I have previously studied mental health or have worked as a mental health professional	I have some kind of personal experience with mental health	I have not studied mental health but have some knowledge about it	I have no previous knowledge regarding mental health	Total
White British	*N*	13	21	8	3	45
	% of total (%)	10.3	16.7	6.3	2.4	35.7
British South-Asian	*N*	14	11	16	9	50
	% of total (%)	11.1	8.7	12.7	7.1	39.7
South-Asian Migrant	*N*	1	0	6	24	31
	% of total (%)	0.8	0.0	4.8	19.0	24.6

As can be seen from Table 7, the majority of WB and BSA participants claimed to have a reasonable amount of previous knowledge. Contrastingly, the majority of SAM claimed to have little to no knowledge of mental health prior to participating in this study.

Discussion

Exploratory factor analysis results implied the pattern of responses from survey results indicated statements fit into certain categories, and these categories were slightly different than the initial category of statements developed from categories used by Isaac, Greenwood and Benedetto (2012) (see appendix 9 and 10). Therefore, components found in exploratory factor analysis were used as categories within the analysis, and the initial categories were discarded. The test of reliability indicated strong internal reliability for all categories except for ‘medication’. This is of consequence as it indicated that further analyses on this category would not be as powerful in detecting statistically significant effects or interactions (Button et al., 2013).

The test of normal distribution demonstrated not all the data was approximately normally distributed, and therefore not all data met parametric assumptions. Meeting parametric assumptions is important, as it indicates consistency will occur in variances displayed when comparing two or more samples (Garson, 2012). Thus, if data is approximately normally distributed, it allows tests of ANOVA to be carried out with statistical validity (Kashy et al., 2009). However, ANOVA's were still conducted, as many different components were statistically significantly different between all three groups. Therefore, as there were no consistent results in terms of normal distribution within the data, it was not appropriate to discard the data for not meeting parametric assumptions. Furthermore, due to the sample size of participants used in the study (N = 126), disruption of the normal distribution does not produce any sizeable problems, as Shapiro-Wilk tests are exceptionally sensitive to sample sizes greater than 40 (Pallant, 2007). Thus, parametric tests can be used in samples of this size even when the data is not normally distributed (Elliot and Woodworth, 2007; Ghasemi and Zahediasl, 2012).

The means and standard deviations from the 2x3 mixed ANOVA showed WB participants had slightly higher scores for the chronic vignette than the transient vignette, indicating more positive attitudes towards depression in general based on all categories when depression was long-term compared to short-term for WB participants. The BSA participants had almost the same score for both the transient and chronic vignette for all categories apart from "medication', where the scores were slightly higher for the chronic vignette than transient. These results indicate that BSA participants generally had equally positive attitudes towards depression regardless of whether it was short-term or long-term. For the SAM's, results were higher for the transient vignette than the chronic vignette for categories 'talking' and 'weakness'; indicating these participants had more positive attitudes towards these categories when the depression was perceived as being short-term. Results were higher for the chronic vignette than transient for the categories 'position' and 'medication', indicating more positive attitudes towards depression for these categories when depression was long-term. In terms of the treatment options, both WB and BSA participants had more positive mean results for talking therapy as the treatment method compared to medication, whereas SAM had relatively same responses for both treatment options. Attitudes towards talking therapy were slightly higher for chronic depression for the WB participants, and slightly higher for transient depression for the SAM's. All participants indicated slightly more positive attitudes towards medication as the treatment option when depression was chronic.

The 2x3 mixed ANOVA results for the category 'talking' revealed no statistically significant main effect for the type of depression in the vignettes, indicating there was no difference within groups, as all participants had similar attitudes towards talking therapy for both vignettes. Results however indicated a statistically significant main effect for the cultural background of participants, as well as a statistically significant interaction between culture and type of depression. Therefore indicating a difference was found in attitudes towards talking therapy between cultures. Further post-hoc testing revealed this difference was between SAM and both WB and BSA participants for both vignettes; therefore indicating SAM had different attitudes towards talking therapy than both the other cultural groups, who had similar attitudes to each other.

The ANOVA results for the category ‘weakness’ indicated no statistically significant main effect for type of vignette, and no statically significant interaction between type of vignette and culture. This indicates there was no difference within groups: all participants had similar attitudes towards both vignettes, and as there was no interaction; the culture of the participant did not affect responses to both of the vignettes. A statistically significant main effect was found for cultural background of participants, indicating attitudes differed between groups. Further post-hoc testing revealed this difference was found between all three cultural groups; therefore all cultural groups had differing attitudes towards weakness.

For both the categories ‘position’ and ‘medication’, the ANOVA results indicated no statistically significant main effect for type of vignette or for cultural groups, and no statistically significant interaction between culture and type of vignette. Therefore, this indicates that as there was no difference within or between groups, and no interaction between the two occurred, all participants had fairly similar attitudes towards both of these categories.

The test of chi-squared revealed some major discrepancies in the amount of previous knowledge regarding mental health held by the different cultural groups. WB and BSA participants claimed to have a sizeable amount of previous knowledge, whilst SAM’s claimed to have little to no previous knowledge. These results could provide an explanation as to why differences in attitudes between the cultures occurred, particularly between SAM and the British cultural groups. Furthermore, frequency of previous knowledge may also contribute to the explanation why some attitudes towards the categories were much lower for SAM’s compared to the other two groups; as SAM’s may have been less educated on mental health and appropriate treatments for mental illness.

In relation to past research, this study interestingly found almost opposite results to those found previously. Overall findings from this study indicated WB and BSA participants had more positive attitudes towards talking therapy (such as counselling) compared to medication, whilst SAM’s had equally positive attitudes towards both types of treatment options. This opposes finding from the studies by Jorm et al. (2005); Gives et al. (2007); Bellamy et al. (2007) and Isaac, Greenwood, and Benedetto (2012) who all concluded that ethnic minorities preferred counselling over medication, whilst ethnic majorities favoured medication. However, this study expanded upon the findings from Sheikh and Furnham (2000), who found statistically significant differences between Western European, British Asian and Pakistani participants regarding beliefs about mental illness. This study developed these findings by establishing that these differences may lay in attitudes towards counselling and perceived weakness of individuals suffering from mental illnesses.

The reason for why this study may only have supported the findings by Sheikh and Furnham (2000) could be due to the country and sample of participants used, as both of these studies were conducted in the United Kingdom; utilising participants from similar cultural backgrounds. This may help explain why the findings from this study contradicted those from the rest of the previous research, as all of those studies were conducted in different countries using a variety of cultural backgrounds of participants, potentially resulting in different results. Furthermore, these differences can result in the fact that this study generally had a smaller sample size of participants compared to the previous research, and therefore the statistical power of

the analysis is reduced (Nakagawa, 2004). Moreover, the low Cronbachs Alpha score for 'medication' may also account for these results, as the low internal reliability may have caused less powerful statistical significance for this category (Button et al., 2013).

This study is of importance as it has many real-world applications by suggesting that a difference in attitudes towards depression exists within British and SAM individuals living in the UK. As differences in attitudes towards treatment options exist; consequently different approaches to help seeking within a mental health care environment will also exist. This study indicates how strong opposing attitudes towards specific treatment options for depression can cause potential problems for individuals when requiring professional help or intervention. Furthermore, this study also demonstrates how frequency of mental health knowledge can impact attitudes towards depression, treatment options, and perceived weakness of individuals with mental health illnesses; suggesting a lack of knowledge leads to negative attitudes. This implies improving mental health education for all UK residents, including migrants, can lead to more positive attitudes and understanding towards mental illness and treatment options available. Government bodies; education institutes; and mental health organisations could utilise these findings in order to improve the type and amount of education individuals receive; thus potentially improving mental illness attitudes nationwide.

Despite these practical applications, there are also some limitations to this study. Firstly, the vignettes were developed using DSM V symptoms of depression, and as the DSM was developed in a Western individualistic culture (America), it can be assumed that the symptoms are based on western attitudes towards depression; and therefore may lack generalisability to all cultures (Littlewood, 1992; Kirmayer, 2007; Chentsova-Dutton; Ryder and Tsai, 2015). This can create problems when using these symptoms in a depression vignette for individuals from a non-western society, as they may not perceive the vignette as actually describing someone suffering from depression (Chentsova-Dutton; Ryder and Tsai, 2008). Secondly, as some participants (SAM) were not originally from the UK, it is unlikely that English would be their first language, and therefore problems with understanding the vignettes, statements or instructions may have arisen (Tsai et al., 2004). Furthermore, the use of online surveys poses a number of problems, the main ones being the inability to fully control all extraneous variables; the inability to respond to language differences; and the lack of face-to-face contact between the participants and researcher not allowing rapport to be built (Riva, Teruzzi and Anolli, 2003; Suzuki et al., 2007). Therefore, methodological issues exist within this study. Finally, as this study was conducted in the UK, using participants who were all currently residing in the UK; it is with caution that these results can be extrapolated to all SAM's or all ethnic minorities, as results may be different if this study were to be replicated in another country (Berry et al., 2011; Coolican, 2014).

However, some of these issues could perhaps be addressed in future research, particularly if researchers focus on the language aspect of the study. Translation of the survey into other languages (for example Urdu for SAM) may help improve the validity of the experiment by ensuring ethnic minority participants fully understand the survey information and instructions, thus potentially improving the study results. Furthermore, actually conducting the study in the other countries (such as in South-Asia) may help enhance or supplement this study, as it may be interesting to see

whether results found in this study differ when using South-Asian participants who are currently residing in South-Asia. Researching the type and amount of mental health education received by people in South-Asia may further improve this study, as it may help to support the potential explanation that the differences in mental health education may be one of the reasons for the differences in attitudes towards depression between SAM's and both the British cultural groups observed in this study.

In conclusion, this study found results opposing some of the previous literature, by generally finding that WB and BSA participants had highly similar general attitudes towards depression; which is likely due to the level of education and acceptance towards mental health found in the UK. WB and BSA participants had more positive attitudes towards talking therapy (counselling) over medication as the treatment option, whereas SAM had similar attitudes towards both talking therapy and medication, unlike previous research. All cultural groups had higher scores for attitudes towards GPs/medication when the depression was chronic compared to transient. All cultures differed in their attitudes towards weakness, yet all participants had similar attitudes for how they would act if they were in the position of the person in the vignette. These results could be attributed to educational level or previous knowledge regarding mental health, as well as cultural stigma and perceived acceptance of mental illness (Barney et al., 2006). Therefore, although culture did have an affect on attitudes towards depression, as results opposed those from previous literature claiming that ethnic minorities prefer counselling over medication; the hypothesis for this study can be rejected. It was hypothesised that South-Asian participants would prefer counselling as the treatment method whereas WB participants would have equal preference for both counselling and medication; however these results were not found.

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