Beliefs about the causes and cures of depression.

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Abstract

Background: This study used attitude statement and vignette methodology to examine a mixed British sample's belies about the causes and consequences of depression.

Aims: To test whether the group would recognise both vignettes with having depression and that the favoured cure would be Psychotherapy/Talking Cure

Method: In all 320 adults completed a two part questionnaire. In the first part they were given two vignettes describing a 30-year-old female and a 45-year-old male both with depression. They were asked what they thought (if anything) was wrong with the person and how they could best be helped. In the second part they completed two questionnaires, one which list 47 possible causes, and one 48 possible treatments for depression.

Results: Most participants "diagnosed" depression for the two vignettes though they chose very different terms and offered a variety of "cures" including medication and counselling. The questionnaires about cause and cure factored into seven interpretable factors which were logically correlated. A series of regressions showed that sex, age, media interest, political beliefs, experience with depression and other mental illnesses as well as having knowing of others diagnosed with depression predicted different beliefs about the causes and cures of depression.

Conclusions: People have a detailed and multidimensional view of the causes and cures for depression which as systematically related to each other.

Introduction

The term 'mental health literacy' (MHL) was introduced by Jorm and colleagues to mean "…knowledge and beliefs about mental disorders which aid recognition, management or prevention…" (Jorm, Korten, Jacomb, Christensen, Rodgers & Pollitt, 1997, p. 182). This includes the ability to recognise specific disorders, knowledge about the causes and risk factors, and knowledge of the help available. MHL is important as it can ensure that mental disorders are recognised early, and the appropriate help-seeking behaviour is encouraged (Jorm, 2012).

Most, but not all, of these studies have used the vignette technique which involves showing people a three to six sentence description of a person with specific symptoms of a particular disorder. Most studies have concentrated on depression and schizophrenia. Indeed there are now studies which refer to *"depression literacy"* (Deen & Bridges, 2011); *"schizophrenia literacy*" (Furnham & Blythe, 2012) and a number of studies on *"psychiatric literacy"* which have tended to focus on the personality disorders (Furnham & Winceslaus, 2012).

Previous studies relating to MHL have found that people have difficulty recognising mental disorders when they are described in a vignette (Link, Phelan, Bresnahan, Stueve & Pescosolido, 1999). Further, many people hold common misconceptions, for example that schizophrenia involves a 'split personality' (Furnham & Rees, 1988; Angermeyer & Matschinger, 1999; Furnham & Chan, 2004). Early studies found that correct recognition rates of depression and schizophrenia were 39% and 27% respectively (Jorm et al., 1997). Studies have also found that these have increased to around 50% for schizophrenia (Klimidis, Hsiao & Minas, 2007) and 60-70% for depression (Jorm, Christensen & Griffiths, 2005). A higher rate for depression than schizophrenia may be due to the higher prevalence of depression in the population which therefore increases the likelihood of contact with the disorder.

An important finding in this area is that the recognition of schizophrenia predicts endorsement of a biological or genetic aetiology (Jorm et al., 1997). Studies also show that both younger and more educated people have more informed beliefs about mental disorders (Fisher & Goldney, 2003; Shurka, 1983; Yoder, Shute & Tryban, 1990). Significant effects of gender (Furnham & Manning, 1997), political persuasion (Furnham & Thompson, 1996), and religiousness (Furnham & Haraldsen, 1998) have also been found. This suggests that demographic variables may have some value in predicting MHL.

There are a number of studies on beliefs about depression. Furnham and Kuyken (1991) carried out a factor analysis of patients' ideas about the causes for their depression, and found six factors: social structure deprivations, interpersonal difficulties, traumatic experiences, affective deprivations, negative self-image, and interpersonal loss. Kuyken et al. (1994) confirmed that depressed patients and non-depressed laypersons have extensive beliefs about the causes of depression comparable to those held by clinical psychologists. However, depressed patients tend to endorse biological explanations of the causes of depression to a greater extent than clinical psychologists. Further, the clinical psychologists assigned a more important causal role to unconscious processes and childhood vulnerability factors than do either depressed patients or non-depressed lay controls.

This study was replicated in Turkey on a student population. Cirakoglu, Kokdemir and Demirtuku (2003) found the perceived causes for depression resulted in six factors labelled trauma, job problems, loss, disposition and isolation. The cure items factored into seven factors labelled: hobby, sensation seeking, avoidance, professional help, religious practices, esteem and spiritual activities. Studies have been replicated across cultures showing more evidence of similarity than differences (Hagmayer & Engelmann, 2014)

Most of the MHL literacy work in this area has used vignettes (Heim, Smallwood & Davies, 2005). Swami (2012) reviewed a number of depresssion vignette studies done over a ten year period and noted that the ability of the general public to identify someone with depression rose from around 40% to 70%. In his study he varied the sex of the person in the depresion vignette and found overall people thought the hyothetical male, compared to the female, was less likely to suffer any mental disorder, and that female repondents were more likely to indicate the male vignette had a mental disorder compared to the female. Loo, Wong and Furnham (2012) showed that overall people were less able to identify depression in children than adolescents.

A number of studies using the same questionnaire have been done in Malayia (Loo & Furnham (2012, 2013; Swami, Loo & Furnham, 2010). They reported studies that looked at culture differences in the identification of illness in two vignettes, the one reporting classic depression symptoms and the second depression with suicidal intentions. They essentially found four things. First, urban populations had a higher MHL than rural populations. Second, between a third and two thirds of the different populations (Chinese, Indian, Malay) were able to

specfically identify the vignettes as people with depression. Third, the factor analysis of the causes of depression questionnaire tended to factor into similar identifiable factors labelled: health and life-style, stress and trauma, biology and brain, supernatural/destiny/God, and personality/will power. Fourth, the depression cure scales tended to factor into readily identifiable clusters labelled lifestyle change, professional treatment, religion and alternative therapies.

This study aimed to replicate the above in Great Britain, but also considering the role of participant ideology (political and relgious beleifs) and media consumption as factors relatede to depression literacy. We hypothesised that over ¾ of the group would recognise both vignettes with having depression (H1) and that the favoured cure would be Psychotherapy/Talking Cure (H2). We also predicted that those who had themselves had been diagnosed with depression would have a less fatalistic theory about cause (H3) and cure (H4). Finally we hypothesised that those with personal experience of others with depression would have a more medical/biological than psychological perspective on cause (H5) and cure (H6).

Method

Participants

322 adults (105 males) with an average age of 26.20 took part. Most were ethically white Europeans (63%) but there were a number of British South East and East Asians (27%) and Africans (2%). Just over half (50.6%) had at their maximum qualification a school leaving certificate, while 18% had a degree and 29% some other post-schooling qualification. They rated themselves on a religious scale from 1 = Not at all to 7 = Very (M = 2.80, SD = 1.77) and political beliefs from 1 = Strongly right wing to 7 = Strongly left wing (M = 4.12, SD = 1.15). They were also asked if they had ever been diagnosed with/suffered from depression (15% said yes); or another mental disorder (8% said yes). They were also asked if they know anyone who had been diagnosed with depression (52% said yes). Finally they were asked to rate on a seven point scale (1 = Not at all; 7 = Very Much) to what extent they had consulted various to understand media: Television (M = 2.91, SD = 1.61), Internet (M = 3.13, SD = 2.11), Academic books (M = 2.84, SD = 1.94), Science books (M = 2.17, SD = 1.56), Magazines (M = 3.02, SD = 1.69) and Radio (M = 1.98, SD = 1.36). The Cronbach's Alpha for consulting the media was .85.

Materials

This was in three parts. The first part involved the identification of two vignettes using names from the original Malaysian studies.

Case 1:

Siti is 30 years old. She has been feeling really down for the last few weeks. She doesn't enjoy things the way she normally would. In fact, nothing gives her pleasure. Even when good things happen, they don't seem to make Siti happy. She has to force herself to get through the day, and even the smallest things seem hard to do. She finds it hard to concentrate on anything and has no energy at all. Even though Siti feels tired at night, she still can't sleep, and wakes up too early in the morning. Siti feels worthless and feels like giving up. Her family has noticed that she hasn't been herself for about the last month. She doesn't feel like talking and isn't taking part in things like she used to.

In your opinion, what is wrong, if anything, with Siti?
How do you think Siti could best be helped?

Case 2:

Johan is 45 years old. In the recent month, Johan has been feeling unusually sad and miserable. He does not enjoy being with his friends and family as before. Even though he feels tired every day, he found it difficult to sleep at night and struggles to get out of bed in the mornings. He does not feel like eating and has lost a lot of weight. Johan cannot concentrate in his daily tasks, and finds it very difficult to function in the home and at work. Johan cannot keep his mind on his work and puts off making important decisions. This is causing problems in his job and his boss is concerned about his lowered productivity. Johan thinks he is a burden to his family and believes that they would be better off without him. Johan feels so strongly that he is unable to cope with life and unable to be happy anymore, he has been thinking of ways to end his life.

In your opinion, what is wrong, if anything, with Johan? How do you think Johan could best be helped?

The second part involved the rating on a number of causes and treatments for depression (see Tables 1 and 2). These were derived from the anthropological, psychological and sociological literature (Angermeyer & Matschinger, 1999) Each was rated on a 7-point agree-disagree scale.

Procedure

Ethics permission was sought and received. The respondents, recruited from public places (parks, railway stations) and were approached by the researchers. Each was asked if they could spare 10-15 minutes to take part in research. Of those that agreed, the response rate was over 90%. Each respondent was then debriefed by the researcher and assured that their responses would remain anonymous.

Results

1. Vignette

Insert Table 1 and 2

A Spearman's rho test revealed no evidence of a correlation between age and perceived knowledge of depression $r(306) = .03$, $p = .63$. Table 1 shows that for the vast majority (78%) used the word depression in the first vignettes and 76% in the second, supporting H1. There was less consensus about the best cure. In the first vignette 39% said medication or doctor and 34% counselling/psychologist/psychiatrist. The results were similar for the second vignette where 48% said doctor/drugs and 53% counselling/therapy/psychologist/psychiatrist.

2. Causes of Depression

Insert Table 3 and 4

Table 3 shows the results of the Varimax rotated factor analysis, as well as the means for each items. The seven factors accounted for 54% of the variance respectively. The factors were clearly interpretable and similar to previous factor analyses. They were labelled God/Fate, Environmental, Health, Self-Obsession, Brain, Genetics, and Parents. It was apparent from the means that respondents thought the first factor (God/Fate) an unlikely cause of depression while the second factor (Environmental) was the most likely cause.

Following this seven regressions were computed with the factor score as the criterion variable and sex, age, religious beliefs and political beliefs, media interest, experience of depression, diagnosed with another illness and know another diagnosed with depression as the predictor variables (see Table 4). It is apparent from Table 4 that whilst most of the regressions were

significant they accounted for very little of the variance. Further while some variables were not significant in any of the regressions (i.e., sex, personal diagnosis of depression, knowing others with depression), age was significant in three regressions and religion in two, rejecting H5. Two regressions accounted for around 10% of the variance. Age was negative, religiosity was a positive predictor of Environmental factors. Also media interest was a positive, and diagnosed of other illnesses, was a negative predictor of Genetic explanation for the causes of depression. However, personal experience of depression did not significantly predict any explanations so not confirming H3. Age was negatively, and religiosity positively related to Brain explanations, while political belief was a negative predictor of God/fate explanations.

3. Cures for Depression

Insert Table 5 and 6

Table 4 shows the results of the Varimax rotated factor analysis. The seven factors accounted for 52% of the variance, and were labelled respectively: Talking Cure, Lifestyle Change, Social Support, Faith, Alternative Medicine, Self-help and Medical. It also shows the means and standard deviation scores for each item. It is apparent from the means that respondents endorse Talking Cures as treatment, but not turning to religion. This confirms H2.

Following this seven regressions were computed with the factor score as the criterion variable and the same predictor variables as above. Five of the seven regressions were significant. The regression which accounted for most of the variance (26%) indicated religiosity was a positive predictor, while having been diagnosed with depression or any other mental illness were negative predictors of Faith. The seventh factor (Medical) explained 22% of the variance, positively predicted by having knowing of others who have been diagnosed for depression, and negatively by religiosity, supporting H6, but not H4. Following that, the regression for Lifestyle change also accounted for 16% of the variance. Religiosity and frequency of consulting the media positively, while age negatively predicted Lifestyle change. Among the other significant regressions, we found that sex and having been diagnosed with depression were negative predictors, while frequency of consulting the media was a positive predictor of Talking Cure; age was a negative, and having knowing of others who have been diagnosed for depression was a positive predictor of Self-help.

Discussion

The present study aimed to replicate the factor structure of a questionnaire assessing beliefs in causes and cures of depression (Loo & Furnham, 2012; 2013; Swami et al., 2010) in Great Britain. Further, we set out to test six hypotheses, of which three (H1, H2 and H6) were supported. We also aimed to examine other correlates of MHL namely ideology and media consumption.

As predicted, over ¾ of the group identified the characters in both vignettes as having depression. Further, the hypothesised favoured cure as *Talking Cures* was also supported, as indicated by the low mean scores of items constituting this factor (see Table 5). These findings suggest higher MHL regarding depression in Great Britain, as compared to other countries like Malaysia (Loo & Furnham, 2012; 2013; Swami et al., 2010) and Australia (Jorm, Nakane et al., 2005; Jorm, Christensen et al., 2005). Further, the percentage of respondents in Great Britain identifying depression in the vignettes have also increased from 42% in Furnham, Daoud and Swami (2009), in line with Swami (2012). This may however be a function of the unrepresentative sample.

Factor analyses revealed seven factors for both causes and cures of depression. Although the number of factors differed from previous research using the same measure (Loo & Furnham, 2012; 2013; Swami et al., 2010), the themes emerged were similar.

The regression analyses shed light into the high MHL concerning depression in Great Britain. Those who endorse Environmental factors as more important causes tended to be younger and more religious, whereas those who consulted the media more and had less personal experience of other mental illness favoured a Genetic explanation for the causes of depression. Those who endorsed factors related to the brain as causes of depression tended to be younger and more religious, while endorsing God/Fate as a cause was more likely among those who are more affiliated with right wing. However, the little variance explained by the regression models is a clear indication that there are other factors contributing towards different beliefs in the causes of depression.

For cures of depression, the factors explored accounted for more variance, indicating that these variables play substantial roles in constituting beliefs in depression cures. More religious individuals who were less likely to having been diagnosed with depression or any other mental

illness tended to believe in religious practice as a source of cure. On the other hand, those who were less religious and more likely to having known others who have been diagnosed for depression were more inclined to perceive medical means as appropriate for treating depression.

The findings suggest that inexperience with mental health issues and high religiosity contribute largely to beliefs that depression can be cured via religious means, whereas low religiosity and exposure to depression through others are important factors leading to beliefs in medical treatment for depression. Younger, more religious respondents who more frequently consult the media tended to believe depression can be cured via a change in lifestyle. This could mean that the media may be depicting a change of lifestyle as an effective way of treating depression. Further, this emphasises the significance of media in shaping and sustaining beliefs in cures of depression among the general population. Men who were less likely to having been diagnosed with depression and frequently consult the media were more inclined to see Talking Cure as a cure for depression, while younger respondents who were more likely to having knowing someone with depression tended to see Self-help as a good way to treat depression.

One limitation of the study concerns the design of the questionnaire, particularly the design of the demographics section. The options given in the questionnaire, either 'European Caucasian', 'Asian', or 'Other' were not able to give an accurate impression of the spread of ethnicity of the sample. As well as this there was a large amount of missing data for this variable. Being able to define respondents by ethnicity would be beneficial, as it has been shown that different cultures have different levels of depression literacy and attitudes to mental illness (Hernandez & Organista, 2013; Wong, Xuesong, Poon, & Lam, 2012).

It would have been desirable to get a large representative sample as this may have been biased to younger better educated people. Further it would have been describable to compare the beliefs of this group with other health professionals, especially those dealing with mental health. Finally, it has been established the MHL with respect to depression is considerably greater compared to other disorders and it would be interesting to see if the similar results would have occurred for other disorders such as anxiety and eating disorders as well as schizophrenia.

References

Angermeyer, M. C., & Matschinger, H. (1999). Lay beliefs about mental disorders: a comparison between the western and the eastern parts of Germany. *Social Psychiatry and Psychiatric Epidemiology, 34*(5), 275-281.

Cirakoglu, Kokdemire, D., & Demirutku, H. (2003). Lay theories of causes and cures for depression in a Turkish University Sample. *Social Behaviour and Personality, 31,* 795-806.

Corrigan, P. W., Edwards, A., Green, A., Diwan, S., & Penn, D. L. (2001). Prejudice, social distance, and familiarity with mental illness. *Schizophrenia Bulletin*, *27*, 219-225

Deen, T. L., & Bridges, A. J. (2011). Depression literacy: rates and relation to perceived need and mental health service utilization in a rural American sample. *Rural Remote Health*, *11*(4), 1803.

Fisher, L. J., & Goldney, R. D. (2003). Differences in community mental health literacy in older and younger Australians. *International Journal of Geriatric Psychiatry*, *18*(1), 33-40.

Freidl, M., Spitzl, S. P., & Aigner, M. (2008). How depressive symptoms correlate with stigma perception of mental illness. *International Review of Psychiatry, 20* (6), 510-514.

Furnham, A., & Blythe, C. (2012). Schizophrenia literacy: The effect of direct experience with the illness. *Psychiatry Research*, *198*(1), 18-23.

Furnham, A., & Chan, E. (2004). Lay theories of schizophrenia. *Social Psychiatry and Psychiatric Epidemiology*, *39*(7), 543-552.

Furnham, A., Daoud, Y., & Swami, V. (2009). How to spot a psychopath. *Social Psychiatry and Psychiatric Epidemiology*, *44*(6), 464-472.

Furnham, A., & Haraldsen, E. (1998). Lay theories of etiology and"cure" for four types of paraphilia: Fetishism; pedophilia; sexual sadism; and voyeurism. *Journal of Clinical Psychology*, *54*(5), 689-700.

Furnham, A., & Kuyken, W. (1991). Lay theories of depression. *Journal of Social Behaviour and Personality,6*, 329-342.

Furnham, A., & Manning, R. (1997). Young people's theories of anorexia nervosa and obesity. *Counselling Psychology Quarterly*, *10*(4), 389-414.

Furnham, A., & Rees, J. (1988). Lay theories of schizophrenia. *International Journal of Social Psychiatry, 34*(3), 212-220.

Furnham, A. & Thompson, R. (1994).Actual and perceived attitudes of wheelchair users. *Counselling Psychology Quarterly, 1*, 35-51.

Furnham, A., & Winceslaus, J. (2012). Psychiatric literacy and the personality disorders. *Psychopathology, 45*(1), 29-41.

Hagmayer, Y., & Englelmann, N. (2014). Causal beliefs about depression in different cultural groups. *Frontiers in Psychology, 5,* 1-17

Heim, D., Smallwood, J.,& Davies, J. (2005). Variability in lay perceptions of depression: a Vignette study. *Psychology and Psychotherapy, 78,* 315-325.

Hernandez, M. H., & Organista, K. C. (2013). Entertainment–Education? A Fotonovela? A New Strategy to Improve Depression Literacy and Help-Seeking Behaviors in At-Risk Immigrant Latinas. *American Journal of Community Psychology*, *52*, 224-235.

Jorm, A. F. (2012). Mental Health Literacy: Empowering the Community to Take Action for Better Mental Health. *American Psychologist*, *67* (3), 231-243.

Jorm, A. F., Jorm, A. F., Christensen, H., Griffiths, K. M., Jorm, A. F., Christensen, H., & Griffiths, K. M. (2005). The impact of beyondblue: the national depression initiative on the Australian public's recognition of depression and beliefs about treatments. *Australian and New Zealand Journal of Psychiatry*, *39*(4), 248-254.

Jorm, A. F., Korten, A. E., Jacomb, P. A., Christensen, H., Rodgers, B., & Pollitt, P. (1997). "Mental health literacy": a survey of the public's ability to recognise mental disorders and their beliefs about the effectiveness of treatment. *Medical Journal of Australia*, *166* (4), 182-186.

Klimidis, S., Hsiao, F. H., & Minas, I. H. (2007). Chinese-Australians' knowledge of depression and schizophrenia in the context of their under-utilization of mental health care: an analysis of labelling. *International Journal of Social Psychiatry*, *53*(5), 464-479.

Kuyken, W., Brewin, C., Power, M. & Furnham, A. (1992). Causal beliefs about depression in depressed patients, clinical psychologists and lay persons. *British Journal of Medical Psychology, 65,* 257-268

Link, B. G., & Cullen, F. T. (1986). Contact with the mentally ill and perceptions of how dangerous they are. *Journal of Health and Social Behavior*, 289-302.

Link, B. G., Phelan, J. C., Bresnahan, M., Stueve, A., & Pescosolido, B. A. (1999). Public conceptions of mental illness: labels, causes, dangerousness, and social distance. *American Journal of Public Health*, *89*(9), 1328-1333.

Loo, P-W., & Furnham, A. (2013). Knowledge and beliefs about depression among urban and rural Indian Malaysians. *Mental Health, Religion and Culture, 16,* 1009-1029

Loo, P-W., & Furnham, A. (2012). Public knowledge and beliefs about depression among urban and rural Chinese in Malaysia. *Asian Journal of Psychiatry, 5,* 236-245.

Loo, P-W., Wong, S., & Furnham, A. (2012). Mental Health Literacy: A cross-cultural study from Britain, Hong Kong and Malaysia. *Asia-Pacific Journal of Psychiatry, 4,* 113-125.

Sartorius, N. (2002). Eines der letzen Hindernisse einer verbesserten psychiatrischen Versorgung: Das Stigma psychisher Erkrankung [One of the last obstacles to better mental health care: The stigma of mental illness]. *Neuropsychiatrie, 16* (1-2), 5-10.

Shurka, E. (1983). Attitudes of Israeli Arabs towards the mentally ill. *International Journal of Social Psychiatry*, *29*(2), 101-110.

Swami, V. (2012).Mental health literacy of depression. *PLOS ONE, 7,11, e49779*

Swami, V., Loo, P-W, & Furnham, A. (2010) Public knowledge and beliefs about depression among urban and rural Malays in Malaysia. *International Journal of Social Psychiatry, 56*, 480-496.

Wolkenstein, L., & Meyer, T. D. (2009). What factors influence attitudes towards people with current depression and current mania? *International Journal of Social Psychiatry*, *55* (2), 124-140.

Wong, D. F., Xuesong, H., Poon, A., & Lam, A. Y. (2012). Depression literacy among Chinese in Shanghai, China: a comparison with Chinese-speaking Australians in Melbourne and Chinese in Hong Kong. *Social Psychiatry and Psychiatric Epidemiology*, *47* (8), 1235-1242.

Yoder, C. Y., Shute, G. E., & Tryban, G. M. (1990). Community recognition of objective and subjective characteristics of depression. *American Journal of Community psychology*, *18*(4), 547-566.

Table 1
Frequency of diagnoses in Case 1

Diagnosis	Freq.	Treatment	Freq.
1. Depression	238	1. Medication (SSRIs, antidepressants, sleeping pills)	86
2. Insomnia/ Sleep disorder	13	2. Counselling	73
3. Mild depression	12	3. Therapy (general, family, group, herbal, psychotherapy)	51
4. Anxiety/stress	9	4. Doctor/GP/NHS	40
5. Severe depression	8	5. CBT	28
6. Anything wrong/ Generally upset	6	6. Help from family	21
7. Feeling down	6	7. Psychiatrist	18
8. Mental Problem	5	8. Friends (talk, spend time etc)	17
9. Relationships related	4	9. Psychologist	17
10. Low confidence/self-esteem	4	10. Changes in life (try out new things/go out)	11
11. Loneliness	3	11. Holiday	9
12. Lack of motivation	3	12. Exercise	5
13. Lack of purpose/goal/direction	3	13. Professional advice/specialist	5
14. Boredom/daily routine	3	14. Do more with others/ socialize	5
15. Fatigue/ tiredness	3	15. Find her dream/passion/interest in life	5
16. Hormonal	2	16. Talk to someone	5
1.7 Tragic Incident	2	17.Check up (medical and mental health)	3
18. Emotional	2	18. Relaxing	4
19. Sadness	2	19. Emotional Support	3
20. Apathy	2	20. Find out cause of feeling down/think about situation	2
21. Loss of interest/excitement	2	21. Focus on the positives	2
22. Money problems	1	22. Healthy eating	2
23 Catatonic Schizophrenia	1	23. Find a relationship	2
24. PMS	1	24. Build self-esteem	2
25. Feeling worthless	1	25. Heart to heart	1
26. Lack of desire	1	26. Needs some vulnerability, feel more vulnerable	1
27. Dysthymia	1	27. Given space	1
28. Feeling Stuck	1	28. Psychoanalyst	1
29. Manic Depression	1	29. Sharing problems and thoughts	1
30. May become aggressive	1	30. BC therapy	1
31. Missing a part of her life	1	31. Unhappy and need time to self	1
32. Not much wrong, pull herself together	1	32. Voluntary work	1
34. Lethargy	1	33. Watch movie	1
35. S.A.D.	1		
36. Something may have happened by keeping quiet	1		
37. What is written	1		

Table 2

Frequency of diagnoses in Case 2

Diagnosis	Freq.	Treatment	Freq.
1. Depression	190	1. Drugs (anti-depressants/SSRIs)	114
2. Severe depression (e.g. acute, bad, extreme etc.)	55	2. Counselling	63
		3. Therapy	53
3. Suicidal	45	4. Doctor (NHS/GP)	41
4. Anxious/ Stressed	11	5. Help from family/friends (advice/talk/spend time/therapy)	26
5. Low self-esteem	9		
6. Physical problems (brain injury/ medical/hormonal e.g. low testosterone)	9	6. CBT	25
		7. Talk to someone/get professional help	24
7. Manic depression	7	8. Psychiatrist	22
8. Feeling worthless/ a failure	5	9. Psychologist	15
9. A lot wrong	4	10. Holiday (with family/friends)	10
10. Unhappy	3	11. Hospital admission/institutionalization	6
11. Mid life crisis	3		
12. Anorexia	2	12. Exercise	5
13. Cannot engage in his origin life	2	13. Change in diet	5
14. Tiredness/fatigue	2	14. Lighter workload/time off work	5
15. Insomnia	2	15. Investigate recent events/feelings to trace cause of problem	5
16. Lethargy	2		
17. Pressure at work	2	16. Find relationship/girlfriend/love	4
18. Same as Kate	2	17. Socialize/go out/meet new people	3
19. Lonely/lack of love	2	18. New hobby/activities	3
20. Lack of meaning of existence/purpose	2	19. Psychoanalyst	2
21. Catatonic	1	20. Psychotherapy	2
22. Demotivated	1	21. Brain check-up/blood test/medical check-up	2
23. Depressed from drugs	1		
24. Affects success and welfare	1	22. Don’t know	2
25. Related to weak relationships	1	23. Social worker	2
26. Melancholic	1	24. Emotional support	1
27. Self harm intentions	1	25. Rebuild confidence in abilities	1
28. Sleep apnoea	1	26. Possible sectioning	1
29. Down on life	1	27. Clinical treatment	1
30. Feels hurt	1	28. Sleep aid	1
31. Distracted	1	29. First step same as Kate	1
32. His family would be better off without him thinking of ways to end his life	1	30. Focus	1
		31. Contact MIND for help	1
		32. Heart to heart first	1
33. His wife isn’t good at making him happy	1	33. Increase in pay	1
		34. It’s too late for him	1
34. Doesn’t feel needed	1	35. Immediate attention	1
35. Lack of social comfort	1	36. Release from pressure to keep going as normal	1
36. Mentally unstable	1		
37. Not in his comfort zone	1	37. Mix more	1
38. Always blames himself	1	38. Needs time to overcome	1
39. Bipolar	1	39. Sunlight	1
40. Poor appetite	1		1
41. Indecisive	1	40. Stressful shake e.g. an attack, extreme sport, martial arts	1
42. Drug use	1		

43. Too much comparison with friends	1	41. Rebuild his relationship with who he loved through a trip/camp	1
44. What is written	1	42. Sectioned under mental health act to prevent suicide in short term	1
		43. New outlook on life	1
		44. Self-analysis	1
		45. Suicide hotlines	1
		46. Assisted suicide	1
		47. Music	1

Table 3
Means and SDs for the perceived causes of depression

Cause	1	2	3	4	5	6	7	Mean	SD
Punishment from God.	.82							1.57	1.24
Possession by ghosts, genies, or evil spirits.	.80							1.69	1.45
Being controlled by a witch-doctor.	.79							1.68	1.48
Being the victim of black magic.	.78							1.54	1.26
Not following religious commandments.	.71							1.79	1.33
Evil done in a previous life.	.68							1.73	1.51
A test from God.	.64							1.57	1.33
Destiny.	.60							1.76	1.40
Wind.	.56							1.55	1.26
Being controlled by Satan.	.54							1.66	1.47
Immoral behaviour.	.39							2.80	1.71
Life trauma (e.g., separation, or loss of a relative/close friend)		.79						5.92	1.24
Childhood trauma (e.g., physical or sexual abuse).		.79						5.76	1.42
Loneliness or a lack of friends.		.79						5.15	1.48
Financial problems.		.66						5.23	1.65
Cold and uncaring parents.		.64						4.50	1.78
A stressful family environment.		.60						5.34	1.25
A monotonous and mundane life.		.54						4.22	1.55
A lack of freedom in society.		.50						3.87	1.79
The pressures of modern society.		.49						4.67	1.50
A lack of exercise.			.77					3.63	1.59
An unhealthy diet.			.77					3.42	1.57
Not drinking enough water.			.68					2.17	1.42
Smoking too much.			.67					2.86	1.58
Body temperature.			.54					1.77	1.30
Lack of will power.			.46					3.66	1.85
Thinking about things too much.				.72				4.46	1.63
Searching too much for inner peace.				.55				2.74	1.75
Day-dreaming too much.				.51				2.03	1.87
Old age.				.38				3.51	1.68
Enlargement of certain areas of the brain.					.77			3.68	1.58
A brain neurotransmitter dysfunction.					.73			4.62	2.17
A chemical imbalance in the brain.					.55			5.38	1.46
Genetic factors.						.82		4.30	1.66
Having blood relatives who have depression.						.74		4.26	1.68
Being raised by parents or guardians who have depression.							.60	4.74	1.48
Having an overprotective mother.							.57	3.01	1.56
Germs or a virus that affects the brain.							.54	3.07	1.69
Individuals wanting to be different.							.38	3.18	1.74
Stress at work.								5.46	1.16
Academic pressure or failure.								5.31	1.37
Complications before or during birth.								3.15	1.78
A side-effect of some other illness.								4.76	1.61
Taking illegal drugs.								4.85	1.61
Repressed feelings and emotions in the subconscious.								4.21	1.69
A lack of sleep.								4.29	1,53

Table 4

Results for the regressions onto each factor for causes of depression

Factors	God/Fate		Environmental		Health		Self-obsession		Brain		Genetics		Parents	
	Beta	*t*	Beta	*t*	Beta	*t*	Beta	*t*	Beta	*t*	Beta	*t*	Beta	*t*
Age	.11	-1.50	-.30	-4.10***	-.10	-1.32	.20	2.72**	-.19	-2.62**	-.01	-.13	-.11	-1.48
Sex	.02	.28	.07	1.06	-.07	-1.03	.09	1.26	.01	.12	-.04	-.66	.07	1.01
Religion	.10	1.47	.16	2.38*	.07	.99	-.02	-.22	.15	2.18*	.04	.53	.02	.24
Political	-.22	-3.07**	-.11	-1.56	.11	1.54	-.01	-.16	.06	.87	-.02	-.28	-.04	-.55
Media	.14	1.93	.03	.41	.11	1.52	.09	1.23	.12	1.70	.21	3.02**	-.01	-.18
Depression	.06	.82	-.08	-1.12	.03	.39	.06	.77	-.07	-.99	-.11	-1.63	.12	1.60
Other mental illness	.03	.42	-.14	-1.94	.03	.43	.01	.18	.12	1.62	-.21	-2.91**	.08	1.05
Other depression	.04	.62	-.04	-.64	.10	1.39	.05	.69	-.08	-1.21	-.04	-.61	.06	.82
	$F(8,205) = 2.32^{**}$		$F(8,205) = 3.56^{**}$		$F(8,205) = 1.89$		$F(8,205) = 1.12$		$F(8,205) = 2.92^{**}$		$F(8,205) = 4.08^{***}$		$F(8,205) = 1.67$	
	Adj $R^2 = .05$		Adj $R^2 = .09$		Adj $R^2 = .03$		Adj $R^2 = .01$		Adj $R^2 = .07$		Adj $R^2 = .10$		Adj $R^2 = .03$	

Note $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$

Table 5

Means and SDs for the perceived treatments of depression

Treatment	1	2	3	4	5	6	7	Mean	SD
Cognitive-behavioral therapy (CBT).	.70							5.24	1.45
Seeing a psychologist.	.70							5.13	1.54
Seeing a psychoanalyst.	.70							4.23	1.58
Talk-therapy.	.67							5.19	1.34
Seeing a psychiatrist.	.65							5.46	1.20
Stress management.	.64							5.19	1.34
Using telephone counselling service (e.g. Befrienders).	.61							4.05	1.53
Seeing a social worker.	.53							3.71	1.55
Seeing a counsellor.	.48							5.53	1.18
Eating well.		.76						4.08	1.51
Changing one's diet.		.75						3.76	1.51
Becoming more physically active.		.68						4.84	1.42
Rigorous exercise.		.62						3.48	1.62
Being kind to others.		.60						3.62	1.73
Quitting smoking.		.48						3.31	1.71
Drinking more water.		.46						3.15	1.64
Going for a physical check-up.		.45						3.52	1.53
Buying books on depression.		.39						3.21	1.53
Socialising more.			.70					4.30	1.44
Thinking positively.			.67					4.93	1.53
Getting help from close friends.			.67					5.08	1.22
Being strong emotionally.			.63					4.04	1.80
Taking up a hobby.			.59					4.74	1.49
Getting help from one's close family.			.56					5.00	1.38
Going on holiday.			.56					3.95	1.79
Seeing a priest or religious teacher.				.83				2.87	1.64
Being more religious.				.80				2.69	1.72
Prayer.				.80				2.89	1.78
Following religious commandants.				.65				2.25	1.58
Seeing a faith healer or *bomoh*.				.58				2.25	1.47
Taking some time off work.				.32				4.15	1.61
Acupuncture.					.71			3.32	1.53
Homeopathy.					.66			2.69	1.50
Taking herbal medicine.					.63			2.83	1.51
Meditation or yoga.					.43			4.20	1.62
Not doing anything.						.66		1.74	1.29
Drinking coconut water.						.49		1.75	1.10
Electroconvulsive therapy (ECT).						.48		3.18	1.70
Resting more.						.46		4.18	1.62
Dealing with symptoms on one's own.						.40		2.97	1.59
Seeing a GP or doctor.							.78	4.61	1.62
Being admitted to a mental hospital.							.56	3.57	1.56
Quitting illegal drugs.							.50	5.05	1.59
Exorcism.								1.63	1.26
Hypnosis.								3.17	1.67
Family counselling.								5.26	1.21
Finding new friends.								4.81	1.43
Taking prescribed medication or drugs.								5.20	1.29

Table 6

Results for the regressions onto each factor for cures of depression

Factors	Talking Cure		Life-style Change		Social Support		Faith		Alternative Medicine		Self-help		Medical	
	Beta	*t*	Beta	*t*	Beta	*t*	Beta	*t*	Beta	*t*	Beta	*t*	Beta	*t*
Age	-.06	-.80	-.32	-4.76***	-.08	-1.15	-.04	-.64	.12	1.55	-.15	-2.03*	.10	1.37
Sex	-.17	-2.47*	.07	1.10	-.05	-.74	-.09	-1.46	.10	1.37	.01	.08	-.02	-.23
Religion	.01	.12	.15	2.21*	-.03	-.36	.43	6.97***	-.04	-.51	-.05	-.71	-.16	-2.32*
Political	-.00	-.03	-.05	-.67	-.11	-1.48	-.11	-1.78	.08	1.11	.07	1.03	-.14	-1.90
Media	.17	2.40*	.19	2.77**	.03	.34	.04	.63	.07	.96	.10	1.36	.05	.65
Depression	-.16	-2.26*	-.05	-.76	.18	2.49*	.15	2.37*	.09	1.18	.01	.09	.03	.44
Other mental illness	-.05	-.67	-.08	-1.14	.09	1.18	-.15	-2.38*	.07	.92	.10	1.36	.09	1.22
Other depression	.08	1.19	-.03	-.48	-.01	-.14	.13	2.05*	.13	1.84	.17	2.42*	.15	2.09*
	$F(8,199) = 2.57^{**}$		$F(8,199) = 6.09^{***}$		$F(8,199) = 1.87$		$F(8,199) = 9.95^{***}$		$F(8,199) = 1.30$		$F(8,199) = 2.18^{*}$		$F(8,199) = 8.18^{***}$	
	Adj $R^2 = .06$		Adj $R^2 = .16$		Adj $R^2 = .03$		Adj $R^2 = .26$		Adj $R^2 = .01$		Adj $R^2 = .04$		Adj $R^2 = .22$	

Note $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$