



## **A Pilot Study Evaluating the Stigma and Public Perception about the Causes of Depression and Schizophrenia**

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### **Abstract**

**Background:** To evaluate public perceptions towards the causes of depression and schizophrenia and identifications of factors resulting stigma towards mental ill.

**Method:** A cross-sectional study was conducted among the inhabitants of Pulau-Pinang, Malaysia in March, 2009. A 24-item questionnaire was used to obtain respondent views. A non-probability (i.e convenient sampling method) was used to approach the potential respondents. Data analysis was conducted using SPSS version 13®, non-parametric statistics (Chi-square) was applied to determine the association. Alpha value less than 0.05 were considered significant.

**Results:** One hundred respondents showed their willingness to participate in the study; overall response of the study was 40.0%. Majority 69% of the respondents were Malays, followed by Chinese and Indians. Public recognition toward depression was higher than schizophrenia. Lack of social support ( $X^2=4.832, P=0.049$ ), chemical imbalance in Brain ( $X^2=6.132, P=0.013^*$ ) and believes in supernatural factors ( $X^2=6.700, P=0.050$ ) were the commonly shared reasons for the mental disorders. Evaluation in terms of stigma revealed that majority 61 (55.0%). Individuals with mental disorders were not friendly ( $X^2=1.008, P=0.050$ ). Furthermore, one third of the population believe that they are moody, dangerous and unpredictable, it is better to avoid them.

**Conclusion:** Overall findings revealed that Malaysians believe in supernatural reasons for the prevalence of mental disorders. Similarly the level of stigma towards mentally ill was higher among the respondents.

**Keywords:** *Depression, Schizophrenia, Supernatural, Malaysia*

### **Introduction**

Mental health problems are one of the main public health challenges to the public health department in the developed and developing countries (1). Efforts to treat the mentally ill, however, are often influenced by the public's knowledge, beliefs and attitudes regarding mental health problems (2-4). Evaluation of public mental health literacy revealed a low knowledge of the respondents (5). It is also seen that public not willing to share the same opinion as mental health professionals about aspects of mental disorders (e.g. causes and risk factors, coping behaviours, effects of treatment (6-8). Schizophrenia is one of the frequently observed mental disorders in the community. Euro-

peans studies to evaluate public's understanding of schizophrenia reported a lack of recognition about the term 'schizophrenia' and they have associated it with 'split personality' (9). A recent study illustrated unchanged recognition toward mental illness, especially schizophrenia (10). Various studies in cross-cultural setting (e.g. Jorm et al., 2005) demonstrate lay beliefs about cause (aetiology) and cure of schizophrenia (11, 12).

In the Western countries, mental disorders are caused by the social environment (7). Moreover, life events are weighted more in comparison to the biological factors while as more of a trigger than a cause of schizophrenia, and biological factors were considered less important than socio-

logical ones (13). Earlier studies reported improvement in public beliefs, findings of Angermeyer & Matschinger, 2005 (14). By contrast, in Asian cultures supernatural phenomena, such as witchcraft and possession by spirits were the reason believed by the majority of mental disorders (15).

In Malaysia despite of the significant changes in Malaysia's mental healthcare systems (e.g. Jamaiyah, 2000) (16), most studies suggest that the stigmatisation of people with mental illnesses is particularly strong in Malaysia. It is still very common for people with mental illnesses to be disparaged (17) and employers often refuse employment opportunities to those with even mild mental health problems (18). Moreover, Malaysians beliefs toward mental disorder may also influence perceptions of mental illness causation and help-seeking behaviour. For example, early study found that Malaysians attributed the cause of some mental illnesses to supernatural agents (19), with witchcraft and possession by spirits being regarded as common causes of mental illness. In Malaysian context, there are no current findings available that demonstrate public knowledge and attitude towards mental disorders (20). In a letter of intent by Ministry of Health Malaysia, it was a top priority to explore public knowledge and attitude towards depression and schizophrenia.

Keeping in view this motivation the present study has examined public perception towards; causes and the patients with depression and schizophrenia in the Penang State, Malaysia.

## **Materials and Methods**

This was a pilot study conducted in Sept 2009 in Penang Island, Malaysia. Penang is one of the thirteen states of Malaysia, comprises of two parts mainland and island. The estimated population of Penang mainly comprises of Malays (42.5%), Chinese (46.5%), Indians (10.6%) and other minorities (0.4%).

### **Study tool**

A 24-item questionnaire was used to obtain the objective of the study. The questionnaire mainly comprises of four sections; Section 1 comprises of

five items (Table 1) that covers the demographic information of the respondents, Section 2 explores the respondent's recognition toward mental disorders. Three questions were the part of this section 1) which one of the following are mental disorders a. depression, b. schizophrenia. 2) Have you ever met a person with one of these mental disorders. 3) Where you met a person with mental disorders (open ended question). Section 3 comprises of nine items. Main focus of section three was to evaluate the public perception towards the causes of mental disorders i.e depression and schizophrenia. The respondents were provided with the option of yes and no to disclose their response. These nine items are illustrated in Table 2. Section 4 was the final section of the questionnaire consists of seven items (response scale: yes/no/unsure) exploring public attitudes toward the people with mental disorders (Table 3).

### **Validity and reliability of study tool**

The content validity of the questionnaire was conducted by the professionals at department of pharmacy, Island College of Technology and at the discipline of Social and Administrative Pharmacy, School of Pharmaceutical Science, University Sains Malaysia and School of Social Sciences University Sains Malaysia. After finalising the contents of the questionnaire, the questionnaire was translated to Bahasa Malaysia (Malaysian National language). The reason for the translation was to enhance the face validity. Further to test the face validity a sample of ten respondents were approached and reliability scale was applied to test the internal consistency. The Cronbach's Alpha value for this questionnaire was= 0.71. Furthermore to assure the validity of the contents factor analysis was carried out. The content validity was estimated by using Bartlett's test of sphericity and Kaiser-Mayer-Olkin measure of sampling adequacy. The results appear that Bartlett's test of sphericity was significant 0.0000 and Kaiser-Mayer-Olkin measure of sampling adequacy was 0.790. According to Sheridan and Lyndall (2001), a measure of more than 0.6 reflects the adequacy of the contents of the questionnaire (21). Thus these results showed a considerable evidence of reliability and validity of the sampling tool.

### **Data collection**

A non-probability sampling method was adopted to approach the respondents. All the questionnaires were self administered, respondents visiting shopping mall and restaurants in Penang Island were approached for their participation in the study. To approach the respondents a convenient sampling method was adopted. A total of N= 250 respondents were approached; however only one hundred were willing to be the part of study. Keeping in view the ethical requirements approval was requested from the institutional research board Island College of Technology. A verbal consent was also taken from the respondents; no such questions were the part of study that discloses the personal information of the participants.

### **Data Analysis**

Data analysis was conducted using statistical package for social sciences SPSS version 13®. A non-parametric statistics was applied; association of demographic variables was assessed using chi-square. Alpha value less than 0.05 were considered significant.

### **Results**

One hundred (response rate= 44.0%) respondents were the part of the study. Most of the respondents participated in the survey were Malays (69%) followed by Chinese and Indians. The mean age of the respondents was 26± SD 9.6; overall most of the respondents were youngsters form age group 18-30 yr. Details about the demographics of the respondents are shown in Table 1. Whilst evaluating public recognition regarding depression and schizophrenia, majority 67% of the respondents has recognized depression as a mental disorder. However, recognition toward schizophrenia was low, only 34% were able to recognize schizophrenia as a mental disorder. About 56% of the respondents have disclosed that they have ever met a person with mental disorders, nearly 27% meet such individual in their neighbourhood however rest 29% have encountered them in hospitals.

### **Perceptions toward causes of mental disorders**

Findings in this regard have shown that, majority 92(83.6%) has associated financial problems as a potential reason for mental disorder. Followed by marital and relationship problems and childhood trauma or bad memories of the past. However, the significant causes identified were chemical imbalance in brain ( $P= 0.013$ ), lack of social support ( $P= 0.049$ ) and supernatural or spiritual reasons ( $P= 0.050$ ). Respondent's perceptions towards the causes of mental disorders are demonstrated in Table 2.

### **Attitude toward individuals with mental disorders**

Results have shown that majority holds negative attitude towards mentally ill people. Majority 61 (55.0%) have disclosed that individuals with mental disorders are not friendly ( $P=0.050$ ). other stigmatising factor contributing toward the negative are illustrated in (Table 3).

**Table 1:** Socio-Demographic data of the respondents participated in this study

<b>Demographic Variables</b>	<b>n 110(%)</b>
<b>Gender</b>	
Male	53 (48.2)
Female	57 (51.8)
<b>Race</b>	
Malay	69 (62.7)
Chinese	22 (20.0)
Indian	9 (8.2)
<b>Age Range (17-60 years)</b>	
<b>Mean 26±9.6</b>	
18-20	35 (31.8)
21-30	42 (38.2)
31-40	9 (8.2)
41-50	13 (11.8)
<b>Occupation</b>	
Students	75 (68.2)
Lecturers	12 (10.9)
Health care professional	7 (6.4)
Sale assistant	6 (5.5)
<b>Marital Status</b>	
Single	71 (64.5)
Married	26 (23.6)
Divorced	3 (2.7)

**Table 2:** Beliefs towards causes of Mental Disorder

Statement	Yes n (%)	No n (%)	P-value
Genetic is one of the main factors contributing to mental disorder	59 (53.6)	51(43.4)	$X^2=0.452$ , $P=0.502$
Chemical imbalance in brain is one of the possible causes of mental disorder	69 (62.7)	41 (37.3)	$X^2=6.132$ , $P=0.013^*$
Lack of social support contributes a lot in occurrence of mental disorder	69 (62.7)	41 (37.3)	$X^2=4.832$ , $P=0.049^*$
Marital/relationship problem is one of the main causes that result in mental disorder	90 (81.8)	20 (18.2)	$X^2=0.636$ , $P=0.489$
Frequent Alcohol/ drug abuse lead to mental disorder like depression and schizophrenia	66 (60.0)	44 (40.0)	$X^2=1.303$ , $P=0.301$
Childhood trauma or bad memories of past can lead to mental disorders	74 (67.3)	36 (32.3)	$X^2=1.868$ , $P=0.196$
Mental disorders are due to supernatural and spiritual reasons	49 (44.5)	61(55.5)	$X^2=6.700$ , $P=0.050^*$
Casting black magic on some one can result in mental disorder	46 (41.8)	64 (58.2)	$X^2=0.100$ , $P=0.752$
Financial problems have major contribution in resulting mental disorder	92(83.6)	18 (16.4)	$X^2=0.174$ , $P=0.674$

Significant, Chi-Square test was applied

**Table 3:** Respondent’s approach towards Patients with Mental Disorder

Statement	Yes n (%)	No n (%)	Un-sure n (%)	Chi-Square
Individuals with mental disorders are crazy	21(19.1)	33(30.0)	56(50.9)	$X^2=14.425$ , $P=0.027^*$
They are dangerous	43(39.1)	22(20.0)	45(40.9)	$X^2=14.048$ , $P=0.015^*$
Individuals with mental disorders are not friendly	61(55.0)	38(34.5)	11(10.0)	$X^2=1.008$ , $P=0.050^*$
I am afraid of being close to such individuals, they are unpredictable and can result harm.	47(42.7)	17(15.5)	46(41.8)	$X^2=18.357$ , $P=0.003^*$
Individuals with mental disorder patients are moody	44 (40.0)	20(18.2)	46(41.8)	$X^2=15.329$ , $P=0.009^*$
What do you think; individuals with mental disorder are kind	31(28.2)	33(30.0)	46(41.8)	$X^2=14.128$ , $P=0.015^*$
They have disturbed/negative thoughts, its better to avoid them	48(43.6)	62(56.4)	-	$X^2=1.381$ , $P=0.833$

\* Significant, Chi-Square test was applied

### Discussion

This study investigated beliefs about causes of mental disorders and attitude toward mentally ill in a multi-ethnic sample of the Malaysian general public. Overall findings have demonstrated that most of the respondents have associated the social prob-

lems as one of the possible causes resulting in mental disorders. Among all marital and relationship problems were the most preferred cause of mental disorders (Table 2). These findings comply with the findings of Tahir et al 2009, that has demonstrated public belief in marital and relationship

problems and possible cause of mental disorders (22). There was, however, evidence that our sample possessed superstitious beliefs about the etiology of mental disorders. Razali et al., 1996 was the first to report supernatural beliefs of Malaysians towards causes of depression (19). Even after a decade no change was noticed in this regard. Especially the Malays were found more likely to relate supernatural factors as the possible cause of mental disorders. Two issues can play a vital role for this public belief; one cultural; and regional beliefs and second one is the media that telecasts serials and tele-film that show the association of black magic and witchcraft with the psychological well being of the person. These findings are not compliant with the findings of Mubarak, 2003 that report alteration in Malaysian beliefs towards the supernatural causes of mental disorders (18). The current study proved that still many has related supernatural reasons as the causes of mental disorders (19). However, unlike the findings of Tahir et al., 2009, about 60-70% of our respondents has agreed with the statement that genetic and chemical imbalance can be the possible contributors leading to the mental disorders (22). A possible reason for this high response towards this statement may be due to the reason that majority of our sample was educated. In addition to the public perceptions toward causes of mental disorders, current study has also focused on the level of stigma among public towards the individuals with mental disorders. Overall findings demonstrated that the level of stigma was highest among Malays in comparison to Chinese and Indians (Table 3). Overall, it has been seen that the majority shared a thought that individuals with mental disorders are not friendly ( $P= 0.050$ ). They are afraid of being close to individuals with mental disorders because they are moody, unpredictable and can result harm. These findings highlight the level of stigma among our respondents. It is bit difficult to come up to a solid conclusion that which ethnic group has the higher stigma in comparison to other. Limited sample size and lack of representative sample are one of the major limitations that hinder to draw a solid

conclusion. However, these findings contradict with the findings of Mubarak, 2003 that report alteration in Malays attitudes toward causes of mental disorders (18). The findings of the current study will act as a base line for the future studies which are willing to explore this area further. Furthermore, the public attitudes shared in this study highlight the need to focus on the social aspects of the mental health. It is the responsibility of Ministry of Health Malaysia to plan some immediate intervention in order to rectify the negative attitudes and beliefs of general public toward mental ill people.

In conclusion, overall findings revealed that Malaysians believe in supernatural reasons for the prevalence of mental disorders. Similarly the level of stigma towards mentally ill was higher among the respondents.

### **Limitations**

One limitation of this study concerns the representativeness of the sample: because of the opportunistic nature of the sampling procedure, we cannot be certain that the sample is representative of a population in Penang. As most of the respondents of our study were students and lecturers which may raise certain issues regarding the sample of the current study. For future studies it is essential to corroborate these findings using large representative samples from Penang. Future studies may also find it useful to use different questionnaires that more explicitly reflect the range of beliefs in a society, which would help elucidate some of the findings of the present study.

### **Recommendations**

These findings highlight the need to modify the national mental health policy with a main focus on the public education towards mental disorders and health campaigns that reduces the stigma among Malaysians towards mental disorders.

### **Ethical Considerations**

Ethical issues including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission,

redundancy, etc. have been completely observed by the authors.

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