COMMUNITY DISCRIMINATION TOWARDS MENTAL ILLNESS: A CROSS-SECTIONAL STUDY IN RURAL SARAWAK, MALAYSIA

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Abstract

Background: Numerous approaches have been taken to reduce mental health issues in the population. However, mental health problems are still arising in the population, and one of the main factors is discrimination towards the mentally ill patient. This issue is inhibiting people from seeking help. This study aimed to assess community discrimination towards people with mental illness and factors affecting it.

Methods: A cross-sectional study was conducted with a total of 840 respondents (420 males and 420 females) from Sarawak, Malaysia aged 21 years and above. Samples were selected by gender-stratified multistage sampling. Collection of data was done using a pre-tested questionnaire to assess the discrimination towards mental illness via face-to-face interviews. A multiple linear regression analysis was conducted to determine the factors affecting community discrimination towards mental illness.

Results: Multiple linear regression analysis revealed that aged between 40 to 49 years old ($p = 0.004$), aged between 50 to 59 years old ($p < 0.001$), female respondents ($p = 0.014$) and having no experience with the mentally ill patient ($p < 0.001$) appeared to be predictors for discrimination towards mental illness. The model significantly explained 6.6% of variance of discrimination score ($F(10,829) = 6.91$, $p < 0.001$).

Conclusion: The findings suggested that community discrimination towards people with mental illness are still common in the rural population. Effective strategies to combat discrimination will need to be organised and implemented at the community level. Further research on this study in different settings is suggested to understand the associated factors better.

Keywords*:* Community, Discrimination, Mental Illness, Sarawak

Introduction

Mental health is an essential condition for which enables a person to function effectively in their daily activities be it school, work, or social events. Subsequently, a good mental health results in productive activities, good relationships, and the ability to adapt to change and cope with challenges. Mental illness occurs when a mental condition is distracted with significant changes in emotion, thinking or behaviour. Thus, this will lead to an individual's problem functioning in the family, work, and social activities (1). Mental illness does not discriminate, which means that anyone can be affected regardless of gender, age, ethnicity, level of education, income, social status, or other aspects of identity. However, the diagnosed mentally ill patients have been hugely discriminated by the community. Previous studies have determined the discrimination towards mentally ill patients among the community or perceived discrimination among the patients themselves (2-4).

Toner et al. (4) had conducted a study in Austria among volunteer befrienders and revealed that the respondents mostly did not discriminate against the mentally ill patients. There was a minority of the respondents who had discriminated the patients with severe mental illness against taking care of their children (4). It contradicted other studies where the majority of the respondents perceived that most of the people would discriminate the mentally ill patients from taking care of their children (2, 5). Reavley and Jorm (6) revealed that the majority of Australians (67.1%) are willing to accept people with

schizophrenia to marry into their family, which is similar to a study by Toner et al. (4) in Austria. Besides, there were a few studies that determined the significant factors that affect the discrimination towards mentally ill patients (2, 7-9). Chan et al. (2) revealed that gender and level of education significantly influence the discrimination towards the mentally ill patients in the community. However, Li et al. (8) and Toner et al. (4) showed that gender and level of education were not found to be significant factors affecting it. Also, other factors such as age, knowledge on mental illness, media exposure and experience with the mentally ill patient have been examined in the earlier studies (4, 10).

In Malaysia, several steps have been taken by the government to reduce issues in mental health in the community. Among the initiatives include the National Mental Health Policy, community-based mental health care, and involvement of multiple agencies in mental health services. However, mental health issues are still rising within the population with one of the main reasons is discrimination towards people with mental illness and also towards support for mentally ill patients (11). The fear of being discriminated against is shown as a significant predictor resulting in barriers in seeking treatment (12). This discrimination towards patients with mental illness denies their right to receive appropriate treatment, and subsequently unable to improve their quality of life. Besides that, it also challenged the patients to improve their job performance and have better productivity (3).

This study could increase community involvement to promote more consideration, and a greater understanding of mental illness itself, encourage openness and conversation about mental illness, and giving surrounding people more confidence to disclose their mental health status. The result of this study can enhance the existing programs related to mental illness in combating discrimination towards people with mental illness. Therefore, it is significant to conduct this type of study among the rural community in Sarawak, Malaysia. This study can be replicated in other populations and geographical areas with different cultures and socio-economic characteristics. The objectives of this study are to determine the discrimination toward people with mental illness and its associated factors.

Materials and methods

Population, setting, and sampling

This cross-sectional study was conducted in Sarawak, Malaysia. The sampling method used in this study is a multistage sampling. Three divisions were randomly selected from each zone in Sarawak; Northern, Central and Southern. Two districts were randomly selected from each division. Five villages and 28 households were then randomly sampled. One adult male or female from the household was selected to answer the questionnaire. The inclusion criteria included respondents aged 21 years and above with no psychiatric illnesses, or drug dependence. Those who did not fulfil the inclusion criteria and refused to sign the consent form were excluded from the study. A population proportion formula with anticipation of a 10% non-response rate was used to calculate the sample size. Thus, a total of 840 respondents were calculated for this study.

Data collection instrument

Data was collected using a set of questionnaire-guided interviews. The questionnaire covered socio-demographic characteristics of respondents, knowledge on mental illness (13, 14); media influence on mental illness (14), experience with the mentally ill patient (14); discrimination towards mentally ill patient (2) and were adapted from the sources cited.

Measurements

Discrimination towards people with mental illness

The questionnaire for discrimination toward people with mental illness had 13 statement items. Respondents need to answer strongly disagree, disagree, neutral, agree or strongly agree on each statement item. Each statement item was scored using a Likert scale from 5- strongly agree, 4- agree, 3- neutral, 2- disagree and 1- strongly disagree. Then, the scores would be sum up as a total discrimination score. This questionnaire was translated forward and backward in Malay and English by two different translators. Then, the questionnaire was pilot tested among 30 respondents and measures the Cronbach alpha for discrimination towards people with mental illness was 0.782.

Knowledge of mental illness

There were 11 items of knowledge of the mental illness. This questionnaire required the respondents to answer 'Yes,' 'No' or 'not sure. The correct answers would be given a score of 1. Meanwhile, the wrong answer and 'not sure' would give a score of zero. This questionnaire was forward and backward translated between Malay and English by two different translators. Then, the questionnaire was pilot tested among 30 respondents.

Media influence on mental illness

There were seven items for media influence on mental illness and required the respondents to answer 'yes' or 'no' for each item. The answer 'yes' for bad media influence item and 'no' for good media influence item would give a score of 1. Meanwhile, the answer 'no' for bad media influence item and 'yes' for good media influence item would give a score of zero. The Malay version of this questionnaire was used.

Experience with mentally ill patients

Six items measured the respondents experience with a mentally ill patient. This section required the respondents to answer each item with a 'Yes' or 'No'. The answer 'yes' for good experience item and 'no' for bad experience item would give a score of 1. Meanwhile, the answer 'no' for good experience item and 'yes' for bad experience

item would give a score of zero. The Malay version of this questionnaire was used.

Ethical clearance

Permission was acquired from the village headman of selected villages. Written consents were obtained from respondents before data collection. The data collected were strictly kept in a confidential file, and kept anonymous.

Data entry and statistical analysis

Microsoft Excel was used in data entry. Subsequently, analysis of data was conducted using IBM Statistical Package for Social Science (SPSS) version 22.0 (15). Descriptive statistics were conducted and presented in percentage, means, and standard deviations. Relationships between discrimination score and demographic variables, media influence on mental illness, and experience with the mentally ill patient were tested with independent sample t-test, analysis of one-way analysis of variance (ANOVA) and Pearson's correlation test. The variables that had a significant association with discrimination score would be determined. Subsequently, those variables became as independent variables in the multiple linear regression analysis with discrimination score as the dependent variables. The categorical data which included age, gender and level of education were dummy coded; 0,1 to assess their effect in the model. Meanwhile, the items for continuous variables (media influence and experience) were coded ("Yes" = 1 and "No" = 0) to calculate the total score of media influence and experience with the mentally ill. A higher score of media influence showed that respondent had bad media influence on mental illness. Meanwhile, a higher score of experience showed that respondent had more experience in dealing with the mentally ill patient. This analysis was conducted to determine the contributing model of discrimination score. The reference group for age was less than 30 years old, gender was male and for the level of education was tertiary education in this model. There was statistically significant when the p-value less than 0.05.

Results

Socio-demographic characteristics

There were 840 respondents who completely answered the questionnaire. The mean age was 43.02 years and there was an equal distribution of male and female respondents. Table 1 shows the detailed socio-demographic characteristics among respondents. Most of the respondents were Malay, Muslim and living with a partner. It was also found that half of the respondents at least received secondary education and mean monthly household income was MYR1012.24. Most of the respondents were unemployed (45.5%) followed by self-employed (35.8%).

Table 1: Percentage distribution of socio-demographic characteristics

Characteristics	Frequency	Percentage (%)	Statistics
Age in years			
<30	112	13.3	Mean (SD) = 43.02 (11.14) Min, 21; Max, 78
30-39	229	27.3	
40-49	228	27.1	
50-59	228	27.1	
≥60	43	5.1	
Ethnicity			
Malay	271	32.3	
Iban	267	31.8	
Bidayuh	120	14.3	
Melanau	74	8.8	
Others[a]	108	12.9	
Religion			
Islam	377	44.9	
Christian	376	44.8	
Others[b]	87	10.4	
Living status			
Living with partner	654	77.9	
Living without partner	186	22.1	
Level of education			
No formal education	78	9.3	
Primary education	256	30.5	
Secondary education	421	50.1	
Tertiary education	85	10.1	
Occupation			
Unemployed	382	45.5	
Private	82	9.8	
Government	49	5.8	
Self-employed	301	35.8	
Retiree	26	3.1	
Monthly income (MYR)			
<501	142	16.9	Mean (SD)= 1012.24 (627.01) Min, 200; Max, 7000
501 to 1000	468	55.7	
1001 to 1500	126	15.0	
>1500	104	12.4	

[a]Others included Chinese, Orang Ulu; [b]Others included Buddhism, Hinduism, no religion

Discrimination towards mental illness

Table 2 shows the percentage distribution and score of discrimination towards mental illness. 'Many people avoid hiring individuals diagnosed with mental illness to be teachers for children in public school' statement had the highest score (mean = 4.21, SD = 0.83). 87.5% of respondents agreed with this statement. These were followed by 'Many employers avoid job applications from mentally ill patients as inclined by other applicants' (mean = 4.08, SD = 0.88) and 'Many people will not hire mentally ill patient to take care of their children' (mean = 4.01, SD = 0.99). 86.2% of respondents agreed that most of the employers would avoid job applications from mentally ill patients as inclined by other applicants and 83.0% of respondents agreed that most people would not employ mentally ill patient to babysitting their children.

Other than that, 79.6% of respondents agreed that most of the employers would avoid hiring mentally ill patients even if they are qualified and 77.6% of respondents agreed that most people would avoid being close friends with those who have a mental illness. The lowest score for discrimination score was 'Many people believe that admission into a psychiatric hospital is a sign of defeat to an individual' (mean = 2.82, SD = 1.29). This statement had the total highest percentage of respondents who disagree (51.9). The mean (SD) for a total score of discrimination was 3.58 (0.65).

Table 2: Percentage distribution and mean score in discrimination towards mental illness (n = 840)

Discrimination towards mental illness	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	SD
Many people believe mentally ill patients do not have the same intelligence as normal people	12.5	30.5	8.1	40.7	8.2	3.02	1.24
Many people will avoid being close friends with those who have mental illness	0.8	12.0	9.5	57.5	20.1	3.84	0.91
Many employers avoid hiring mentally ill patient even if they are qualified	2.0	11.9	6.4	50.0	29.6	3.93	1.01
Many people believe that mentally ill patients are dishonest	13.1	36.9	15.1	22.0	12.9	2.85	1.27
Many people will not treat mentally ill patients equally as they do with other people	2.6	18.0	10.5	48.7	20.2	3.66	1.07
Many people avoid hiring individual diagnosed with mental illness to be teachers for children in public school	0.5	5.5	6.5	47.4	40.1	4.21	0.83
Many employers avoid job applications from mentally ill patients as inclined by other applicants	1.1	8.0	4.8	53.8	32.4	4.08	0.88
Many people will not hire mentally ill patient to take care of their children, even if they have recovered	2.9	8.5	5.7	50.5	32.5	4.01	0.99
Many youngsters are reluctant to date someone who have a mental illness	4.5	21.7	15.4	40.4	18.1	3.46	1.15
Many people do not think about the mentally ill	3.8	20.4	13.1	44.8	18.0	3.53	1.12
Once they know a person is a patient with mental illness, most people will not take his or her opinions seriously	4.4	19.2	9.3	42.6	24.5	3.64	1.17
Many people believe that admission into psychiatric hospital is a sign of failure to an individual	14.4	37.5	13.1	22.0	13.0	2.82	1.29
Many people think that mentally ill patients are harmful and unpredictable	5.0	24.2	4.6	43.0	23.2	3.55	1.22
Total discrimination score						**3.58**	**0.65**

Factors affecting discrimination towards mental illness: Multivariate analysis

In bivariate analysis, age, gender, level of education, media influence and experience with the mentally ill patient appeared to be statistically significant towards discrimination ($p < 0.05$). These variables were further analysed using multiple linear regression analysis. The overall model was significant in explaining 6.6% variance of discrimination score ($F(10,829) = 6.9$, $p < 0.001$).

The analysis revealed that four variables were found as important predictors in the model which were age (40-49 and 50-59 age group), female, and experience with mentally ill patients. From the analysis, it demonstrated that those aged between 40 to 49 years old were 0.15 (p = 0.004) times more likely had discrimination towards mental illness compared to those who were aged less than 30 years old. Moreover, those aged between 50 to 59 years old were 0.21 (p < 0.001) times more likely had discrimination towards mental illness compared to those who were aged less than 30 years old. Besides, female respondents were 0.08 (p = 0.014) times more likely had discrimination towards mental illness compared to male respondents. Besides, respondents who had more experience with the mentally ill patient were 0.14 (p < 0.001) less likely had discrimination towards mental illness compared to those who had less or no experience with the mentally ill patient (Table 3).

Table 3: Factors affecting the discrimination towards mental illness: Multiple linear regression analysis

Variables	*Coefficient*	*SE*	*t*	*p value*	*Standardized Beta*
Age in years					
<30 (RC)	0.00				
30-39	0.04	0.07	0.59	0.554	0.03
40-49	0.21	0.07	2.86	0.004*	0.15
50-59	0.31	0.08	3.84	0.000*	0.21
60+	-0.05	0.12	-0.44	0.662	-0.02
Gender					
Male (RC)	0.00				
Female	0.11	0.04	2.47	0.014*	0.08
Level of education					
No formal education	0.15	0.11	1.41	0.160	0.07
Primary education	0.12	0.09	1.46	0.145	0.09
Secondary education	0.08	0.08	0.99	0.321	0.06
Tertiary education (RC)	0.00				
Media influence	0.02	0.01	1.80	0.072	0.06
Experience with mentally ill patient	-0.08	0.02	-4.02	0.000*	-0.14

RC: Reference category
F(df) ratio = 6.91 F (10,829)
*p<0.001
Adjusted R2= 0.0658

Discussion

This study assessed a representative sample of rural Sarawak population on discrimination towards people with psychiatric illness and associated factors. Data in this study showed that the rural community appeared to have high discrimination towards the psychiatric patients. The mean score for discrimination in this study was much higher than other studies (16-18). Female gender, age and experience with the mentally ill patient were significant factors of discrimination, though only small variance was explained. Greater experience with the mentally ill patient was associated with lesser discrimination toward individuals with a psychiatric problem.

Almost nine-tenths of the respondents believed that most of the people avoid hiring the individual with psychiatric problems to be the teachers for children in school. Our study showed higher discrimination of mentally ill patients compared to Chan et al. (2) and Bifftu and Dachew (7) which were 71.2% and 78.1% respectively. The community still have the perception that a person with psychiatric problem is threatening and can affect and possibly injured their children. This could happen during their encounters in school. Most of the respondents in this study also believed that once they knew individuals with psychiatric problems and most of them do will not thoughtfully consider his or her views (67.1%). This finding was higher than the study conducted by Li et al. (8) where the percentage was 51.0%. This description reflected the individuals with psychiatric illness have experience of being discriminated against by the community and have difficulty during recovery.

Due to differences in the culture, setting, and other factors, the respondents' exposure of discrimination was different in comparison to similar studies conducted in China (2, 8) and Ethiopia (7). Another possible reason could also be due to the different community surveyed in the study, procedure of collecting data, and insufficient anti-discrimination community engagement program in the study area. However, there are some similarities reported from the study done using the same tool (2). For example, 87.5% of Chinese participants in China agreed with the item "most of the employers would avoid job applications from mentally ill patients as inclined by other applicants" whilst 86.2% in this study and 32.9% of the participants agreed with the item "Many people believe that admission into psychiatric hospital is a sign of failure to an individual" compared to 35.0% in this study.

Female gender, age and experience with the mentally ill patient had been found as significant predictors of discrimination score. However, the model only described a small variance of the discrimination score (6.6%). In this study, the finding of the relationship of female gender and higher discrimination towards mentally ill patient was in line with a study of Chinese population in Hong Kong (2) but differed to a study by Evans-Lacko et al. (13). However, another study conducted among Chinese population in China revealed that there was no relationship between gender and discrimination level towards mental illness (8).

This study found that higher age possibly contributes to high discrimination towards the mentally ill patient which contradicted with a study conducted by Li et al. (8) and Hsiao et al. (19). However, there are other studies showing age as a significant predictor to discrimination score (2, 4). It may be possible that in Sarawak, older people tend to receive more unpleasant experience in dealing with people with mental illness, and hence more likely to have the indigenous understanding and discriminate against them. No experience with the mentally ill patient was found to be a highly possible predictor in this study. Those who had more experience with mentally ill patients probably would less discriminate against them.

Nonetheless, other previous studies did not show any relationship between experience and discrimination towards mentally ill patient (4, 8, 10). Level of education was found to be a possible predictor for lesser discrimination towards mental illness in several previous studies (9, 10, 13). In comparison with Chan et al. (2) revealed that a higher level of education would result in more significant discrimination. This was in line with Yang et al. (20) which found that people with higher education levels are more likely to believe the responsibility of the patient with mental illness; such beliefs increase the fear and anger. However, such a relationship was not found in this study. Lastly, there was no increased risk for discrimination except for the gender, age and experience with mentally ill factors. The model established in this study can explain the discrimination score with a small variance. Thus, it showed the complexity of community discrimination towards mental illness with additional of the only small amount of consistent factors associated with it from other earlier researches. Finally, further studies are needed to dismantle the issue.

Limitations of the study

There were some limitations to this study. Firstly, there was insufficient previous literature within Malaysia which restricts the discussion in terms of comparison of the findings. Secondly, while completing the questionnaire, there might have recall and response biases among respondents. Thirdly, the study was based on self-reported measures, so it might be challenging to make a reliable assumption about the probable predictors of discrimination towards mental illness.

Conclusion

In conclusion, the prevalence of discrimination towards mental illness was found to be high among the respondents. Female gender, age and experience with the mentally ill patient were factors associated with the discrimination. However, these findings are relevant in rural areas. It is essential to organise and conducted anti-discrimination intervention program for the future progress of mental health especially in Sarawak, Malaysia. Moreover, it may encourage people to seek help in any issue of mental health. Finally, although we find a small variance of the model explained the discrimination score, there is also similar evidence in other studies. Thus, we should further examine the factors associated with discrimination towards mental illness.

List of abbreviations

ANOVA	Analysis of one-way analysis of variance
MOH	Ministry of Health
NMRR	National Medical Research Register

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Ethical Clearance

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Competing interests

All authors declare that they had no conflict of interest.

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