



## Cross-sectional Survey: Public Attitude toward Mental Illness in China

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### Abstract

**Objective:** To explore the attitude of general public toward mental illness in China and investigate factors associated with attitude toward mental illness.

**Method:** A cross-sectional study design was adopted. Data was collected in 10 housing estates randomly selected from a list of housing estates with mental rehabilitation centers in Hong Kong in September 2014. 20 respondents were selected by quota sampling from every chosen housing estate. The inclusion criteria for the selection were residents of respective housing estates, aged over 18 years and could communicate in Chinese. The exclusion criterion was those diagnosed with mental illnesses. In total, 200 respondents were recruited. They were asked to complete a 15-item questionnaire using a 5-point Likert scale. General Linear Model Univariate Analysis and correlation analysis were used to analyze the data.

**Results:** Amongst 200 respondents, 42.5% were female and 57.5% were male. 70-80% of respondents believed that everyone had equal chance of having mental illness. They thought that the community should tolerate mentally ill people. And those who are mentally ill should not blame themselves for the illness. 40-70% of respondents expressed that they had difficulty in communicating with mentally ill people. They also commented that the behaviours of the mentally ill were difficult to predict. Such people would conceal their mental problem. Correlation analysis found that the attitude score was negatively associated with age ( $r = 0.152$ ,  $p = 0.032$ ) and positively associated with educational attainment ( $r = 0.176$ ,  $p = 0.013$ ) and family history of mental illness ( $r = 0.139$ ,  $p = 0.045$ ).

**Conclusions:** The public expressed uneasiness when getting contact with mentally ill people. Their unfamiliarity with mental illness which is yet properly addressed could be an obstacle of mental rehabilitation.

### Keywords

Public attitude, Mental illness, China

### Clinical Implications

- The public has much misunderstanding about mental illness which might contribute to their negative attitude toward mental illness, especially on issues related to social contact
- Current community education on mental illness is either

inadequate or has failed to correctly address the public issues on mental illness

- Healthcare professionals should be more sensitive to the fast changing structure of Hong Kong's population and design community education programmes to cater to the new concerns as they develop

### Limitations

- Respondents' knowledge on various mental illnesses and their cultural background were not studied. It is therefore inconclusive whether the attitudes reflected in their answers are associated with their knowledge of mental illness and/or cultural background
- As there are many varieties of mental illnesses, asking respondents in general their attitude on mental illness might possibly bias the result as their attitude on different types of mental illnesses may vary

### Introduction

Public attitude toward mental illness is usually negative in many western and Asian countries [1-7]. Both qualitative and quantitative studies [3-5] have reported that Chinese societies possess a lower benevolence toward and impose more social restriction on the mentally ill. People with mental illnesses are being labelled as dangerous and aggressive, and their families are being disapproved of and devalued [3-5,8,9]. The general public is unwilling to become close friends with them. Cross-sectional studies have reported that 30-40% of the respondents believed that mental rehabilitation centers should be far away from residential areas and expressed that it was inappropriate to locate those centers near housing estates [5,10,11].

Evidence in these studies reveal that mentally ill people and their significant others are discriminated against in daily social contact. It was found that over half of the mentally ill people experienced discrimination during social contact [12]. And the stigmatization they received was significantly higher than received by those with other chronic health conditions such as diabetes mellitus [12]. Such discrimination toward the mentally ill and their significant others not only lowers their self-esteem and reduces their engagement to the community, but also encourages inequity in health care because they receive less support from the community [7,13,14]. It thereby

compounds the detrimental effect on their rehabilitation and reintegration into the community [1-7].

Since the Hong Kong Government began shifting mental health services from hospital to community settings in 2009 [15], many public housing estates in Hong Kong now have mental rehabilitation centers. There is a pressing need to obtain empirical information on the public attitude on mental illness. Equally important, the change in Hong Kong's immigration policy in the last decade has allowed more and more mainlanders to stay permanently in Hong Kong. The drastic change in population structure presses healthcare professionals to re-evaluate citizens' attitudes on mental illness. To this end, the objective of this study is to explore the public's attitudes toward mental illness in Hong Kong and investigate factors associated with these attitudes.

## Methods

This was a cross-sectional study using a structured survey to explore the attitudes of public housing residents towards mental illnesses. Data was collected in public housing estates with mental rehabilitation centers in Hong Kong from September to October 2014.

### Participants

Quota sampling was adopted to recruit 200 respondents from public housing estates with mental rehabilitation centers. First, the research team randomly selected 10 housing estates from a list of public housing estates with such centers provided by the Social Welfare Department. 20 residents were then interviewed from each of the selected housing estates by convenience. The inclusion criteria were aged over 18 years, residents of respective public housing estate, and able to communicate with Cantonese; the exclusion criterion was those diagnosed with mental illnesses.

### Instruments

A structured questionnaire with two sections was developed by the research team. Section 1 was the collection of demographic data, i.e. age, gender, educational attainment, family history of mental illness, and the frequency of contact with mentally ill people. Section 2 was 15 statements adopted from Siu et al. and validated by an expert panel composed of psychiatrists, social workers and psychologists [11]. A test-retest reliability assessment was conducted before data collection to ensure that the questionnaire was reliable. These 15 statements described 3 positive and 12 negative attitudes toward those with mental illness, rated as a 5-point Likert scale from 'strongly agree' to 'strongly disagree'.

Research team members were responsible for the interview and administered the questionnaire. Before data collection, team members met for a simulated interview to ensure that all members had the same interpretation of each statement and that they would interview respondents in the same manner. This ensured consistency in the interview process.

### Variables

The dependent variable in this study was the attitude toward mental illness which was defined as the summation of all sub-scores on the 15 statements. The highest possible total score was 75. The higher the score, the more positive was the attitude toward mental illness. And the independent variables were the demographic data, i.e. gender, educational attainment, age, frequency of contact with mentally ill people and family history of mental illness.

### Procedure

One research team member stayed in one chosen public housing estate from September to October 2014. They approached residents individually to explain the aim and procedure of the survey. If the resident agreed to participate and gave informed consent, the team member collected demographic data, explained the 15 statements, and asked them to complete the questionnaire on the spot. The whole process took 10-20 minutes.

### Ethical Consideration

Ethics approval was obtained from Ethics Review Committee at Tung Wah College. An information sheet and informed consent form was given to each respondent to ensure that they understood the aim of the survey, dissemination of the findings and their rights. The completed questionnaires were anonymous and coded. Hardcopies of the questionnaires were stored in a locked cabinet only accessible to designated personnel, and the softcopies were encrypted and stored in the Principal Investigator's computer.

### Statistical Analysis

Statistical Package for the Social Sciences (IBM SPSS Statistics) version 23 was used for computing the results. Descriptive analysis was first computed to learn the distribution of the data in demographic data and each statement. General Linear Model Univariate Analysis was performed to learn the effect of age, gender, educational attainment, frequency of contact with mentally ill people and family history of mental illness on total attitude score. Pearson product-moment correlation-coefficient or Spearman rank correlation

**Table 1:** Characteristics of the respondents (N = 200)

Characteristics	Frequency (n,%)	Significance (P)
<b>Gender</b>		X <sup>2</sup> = 4.5, p = 0.034*
Male	115 (57.5)	
Female	85 (42.5)	
<b>Education Attainment</b>		X <sup>2</sup> = 32.71, P = 0.000*
Primary or below	33 (16.5)	
Secondary	99 (49.5)	
Tertiary or above	68 (34)	
<b>Age</b>		X <sup>2</sup> = 12.04, p = 0.007*
18-30	64 (32)	
31-40	44 (22)	
41-50	59 (29.5)	
51 or above	33 (16.5)	
<b>Frequency of contact with mentally ill people</b>		X <sup>2</sup> = 71.8, p = 0.000*
Never	81 (40.5)	
Once or twice in three months	50 (25)	
Once a month	35 (17.5)	
At least once within 2 weeks	19 (9.5)	
At least once a week	15 (7.5)	
<b>Family history of mental illness</b>		X <sup>2</sup> = 106.58, p = 0.000*
Yes	27 (13.5)	
No	173 (86.5)	

\*p < 0.05 is regarded as statistically significant

coefficient was used to calculate the correlation coefficient between the total attitude score and the demographic data.

## Results

Amongst 200 respondents, 42.5% (n = 85) were female and 57.5% (n = 115) were male. The majority of all respondents had no family members with mental illnesses. There was a significant difference among groups in gender, educational attainment, age, frequency of contact with mentally ill people and family history of mental illness. Table 1 summarizes the characteristics of the respondents.

### Attitude toward mental illness

The total attitude score was  $45.46 \pm 7.26$ . Assessing the level of agreement on each statement revealed that 70-80% respondents had positive expression on statements describing social contact and resource allocation such as “increasing social expenditure on mental health services” and “everyone having the same chance of having mental illness”. As to the statements related to personal contact, their expression tended to be negative or more conservative. 40-70% respondents expressed that they had difficulty in communicating with mentally ill people, in predicting their behaviours and they would not tell others if they had mental illness. About 50% of them either agreed or were neutral when responding to statements such as objecting to the building up of residential hostels near their household, having difficulty to make friends with mentally ill people, and feeling embarrassed to go out with mentally ill people. Table 2 summarizes the responses on agreement with each statement. For those responded as ‘strongly agree’ and ‘agree’ on the statements were grouped into ‘agree’ while those responded as ‘strongly disagree’ and ‘disagree’ were grouped as ‘disagree’.

### Factors associated with mental illness

There were group differences in the total attitude score in family history of mental illness and educational attainment ( $p=0.045$  and  $<0.001$  respectively). Respondents with a family history of mental illness had more positive attitude than those without such history. A post hoc analysis using the Bonferroni test revealed that those with primary education or lower had significantly more negative attitude than those with secondary education or above.

Correlation analysis found that the attitude score was negatively associated with age ( $r = -0.152$ ,  $p = 0.032$ ) and positively associated with educational attainment ( $r = 0.176$ ,  $p = 0.013$ ) and family history of mental illness ( $r = 0.139$ ,  $p = 0.045$ ). Younger people with higher education and family history of mental illness had more positive attitude toward mental illness.

## Discussion

### Attitude toward mental illness

The total attitude score implies that the general public in Hong

Kong has a positive attitude toward mental illness. Most respondents indicated that they felt the community should do more for these people. However, the results also illustrated that they did hesitate in receiving these people into their social networks. It was reflected in their responses on negative statements related to personal contact. Though the percentage of ‘agreed’ on those statements was low, the percentage of ‘neutral’ was about 20-30%. This ‘neutral’ group might either hesitate to answer the statement truthfully or feeling uneasy to spell out their negative views. It was out of the scope of this study to find out the reason of being neutral to those statements, but such a significant percentage of neutrality informed us that the public was still not ready to accept mentally ill people.

The findings in this study were consistent with other studies and could be categorised into personal contact and face preservation. For personal contact, a majority of the respondents thought or did not deny that communicating with mentally ill people was difficult. The behaviour and mood of such people were unpredictable; they tended to be violent [16,17]. Respondents objected to building residential hostel for the mentally ill nearby their homes, further reinforcing the conclusion that respondents were not ready to get close to mentally ill people for whatever reason. For face preservation, they tended to not tell others either they or their family members suffered from mental illness. It reflected that they unconsciously perceived mental illness as something that would destroy their dignity, or “face”, in their social circle which is important in Chinese societies [18]. Such thoughts would hinder the social reintegration of mentally ill people and lead to social distancing which is detrimental to mental rehabilitation.

The public attitude toward mental illness seems to be deteriorating. As compared to the findings from Siu et al. [11], this study shows a 5-10% increase in opposing the construction of residential hostels near respondents’ own homes, increase in feelings that mentally ill people are difficult to get along with, increase in believing that mentally ill people are violent and unpredictable, and increased fear that others will look down on them if their relatives are known to be mentally ill. Also, twice as many respondents in this study thought that increasing expenditure on mental services wasted resources as compared to Siu et al. [11]. There are three possible reasons for the differences in results of these the two studies. First, the target group in this study was those living in housing estates with mental rehabilitation centers while the target group in Siu et al. [11] was elderly homes, private housing estates, and secondary schools. The target group in Siu et al. [11] might not have an immediate concern for the mentally ill and mental health service. Their responses might therefore be more agreeable. Second, the educational attainment of the respondents in this study was lower than those of Siu et al. [11]. Because educational attainment was found to be positively associated with the total attitude score, the difference in educational attainment between the two studies almost contributed to the different results. Third, changes in community structure, not reported in this study, might also have impacted findings. Due to the change in immigration

Table 2: Agreement on each statement (N = 200)

Statements	Agree (n,%)	Disagree (n,%)	Neutral (n,%)
It is difficult to communicate with people with mental illness.	81 (40.5)	76 (38)	43 (21.5)
It is common for people with mental illness to have propensity for violence.	52 (26)	113 (56.5)	35 (17.5)
The majority of people with mental illness can recover.	138 (69)	28 (14)	34 (17)
People with mental illness are weak, they should blame themselves for their illness.	13 (6.5)	150 (75)	37 (18.5)
The society should treat people with mental illness with a tolerant attitude.	162 (81)	13 (6.5)	25 (12.5)
It is difficult to predict the behaviors and mood of people with mental illness.	136 (68)	27 (13.5)	37 (18.5)
Everyone has the chance to develop mental illness.	161 (80.5)	18 (9)	21 (10.5)
I would not tell others that I suffer from mental illness.	96 (48)	46 (23)	58 (29)
People having a relative suffering from mental illness would be looked down upon by others.	72 (36)	88 (44)	40 (20)
I feel afraid of talking to people with mental illness.	54 (27)	106 (53)	40 (20)
I oppose the building up of residential hostels for people with mental illness near to my household.	47 (23.5)	90 (45)	63 (31.5)
There are no medication treatments for mental illness and people with mental illness have very low chance of being recovered.	36 (18)	138 (69)	26 (13)
It is difficult for me to make friends with people with mental illness.	57 (28.5)	98 (49)	45 (22.5)
I feel embarrassed to go out with my relative if my relative has mental illness.	46 (23)	113 (56.5)	41 (20.5)
It is a waste of money to increase the expenditure on the service to care for people with mental illness.	15 (7.5)	157 (78.5)	28 (14)

policy in Hong Kong and the trend of mainlanders getting married with Hong Kong people, more and more mainlanders have migrated to Hong Kong, and they mostly have settled in public housing estates. Their diversified cultural background may affect their health concepts leading to different interpretations of and attitudes toward mental illness [16,19].

### Factors associated with attitude toward mental illness

In this study, the findings suggested that younger people with higher education have more positive attitudes toward mental illness. This correlation is consistent with other studies [1,16,17,20,21]. This study also found that respondents with family history of mental illness had more positive view on mental illness, while there was no significant difference in total attitude score on frequency of contact with mentally ill people. These findings are consistent with some studies [22,23] but not others [5,17]. Such inconsistency might be due to the interpretation of frequency of previous contact. In Angermeyer and Dietrich [17] and Tsang et al. [5], their definition of previous contact included personal contact and personal experience, which included self-experiencing mental illness or having mentally-ill relatives. In this study, previous contact was only taken into account as personal contact while family history of mental illness referred to personal experience. The findings here further reinforced that personal experience is significantly associated with attitude toward mental illness. This might be because those with family history might discuss more among their family and know more about mental illness [20].

Age, educational attainment and family history of mental illness were found to be significantly associated with the total attitude score. However, their low variances indicated that they were not the most important factors in predicting the score, and implied that those important factors were not covered by the questionnaire. These factors might include, for example, knowledge of mental illness and cultural beliefs about mental illnesses.

### Limitations and further studies

It is possible that the findings in this study cannot be generalized to all mental illnesses as the study did not ask respondents to express their view on, or distinguish between, specific groups of mental illness. As some studies have reported that people have different attitudes toward different mental illnesses [9,17], future study should focus on specific group of mental illness to clarify this point. Healthcare professionals can then adjust their health education programmes accordingly.

Another limitation in this study is the failure to assess cultural background and the level of knowledge on mental illness of each respondent. It is inconclusive whether the negative attitude was due to their own personal opinion, or perhaps influenced by cultural background or their knowledge of mental illness. It is suggested that future study shall include recording the cultural background of the target group and their knowledge of mental illness.

### Conclusions

In general, the public attitude in Hong Kong toward mental illness is positive. But the positive expression was mostly found in statements related to social contact while negativity was expressed in personal contact. These results inform healthcare professional that community education on mental illness is somewhat inadequate or not accurately targeting the public issues. As it is a trend to shift mental rehabilitation to the community, healthcare professionals should modify their community education on mental illnesses with reference to the demographic profiles and concern of the people they serve.

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### Conflict of Interests

None

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