Mental Health Literacy in Hong Kong

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Abstract

Background and Aims: The aim of the current study was to investigate Hong Kong

nationals' ability to recognize 13 different mental disorders and to examine whether

there may be a relationship between their mental health literacy (MHL) and their

tendency to describe/ explain symptoms of mental disorders in physical terms.

Methods: A total of 299 participants were shown adapted vignettes depicting post-

traumatic stress disorder, depression, obsessive-compulsive disorder, dependent

personality disorder, schizotypal personality disorder, generalized anxiety disorder,

agoraphobia, bipolar disorder, social phobia, panic disorder, narcissistic personality

disorder, schizophrenia and antisocial personality disorder.

Results: Overall, OCD was the best identified and the personality disorders were the

worst. A significant negative correlation was found between participants' MHL and the

rate of offering a "physical" rather than a "psychological" explanation. Some mental

disorders were better recognized than others such as OCD (40.1%) and depression

(36.3%). However, the majority of the other disorders were very poorly recognized and

labelled with the rest having "correct response" rates of lower than 15%. Over half of

the mental disorders had "correct" response rates of lower than 5%.

Conclusions: In accordance with many other studies in the area, this study found Asian

participants poor at recognising mental disorders. This is probably due to the fact that

mental illnesses of all kinds remains a taboo topic.

Keywords: Mental health literacy, Hong Kong, disorders, depression

Introduction

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Mental health literacy (MHL) refers to a lay person's knowledge and attitudes towards mental health issues which may aid their "recognition, management or prevention" (Jorm, 2012; Jorm, Korten, Jacomb, Christensen, Rodgers & Pollitt, 1997). It consists of several components which include the "ability to recognize specific disorders", "knowledge and beliefs about risk factors and causes", "knowledge and beliefs about self-help and professional help available", "knowledge of how to seek mental health information" as well as having "attitudes which facilitate recognition and appropriate help-seeking". One reason for this research interest has been to reduce the misunderstanding and prejudice against those with mental health issues (Thornicroft, 2006ab).

MHL studies have been carried out extensively in western countries such as Germany (Angermeyer et al., 2009), Switzerland (Lauber et al., 2003), and the UK (Furnham & Winceslaus, 2012) as well as Africa (Ikwuka, Galbraith & Nyatanga, 2014) and Asia (Griffiths, Nakane, Christensen, Yoshioka, Jorm., & Nakane, 2006). MHL studies carried out in Eastern/Asian countries have shown that the recognition of mental disorders and general MHL were generally poorer than in the West/Europe (Furnham & Hamid, 2014). For instance, Altweck, Marshall, Ferenczi and Lefringhausen (2015) found, as predicted, that Indians were less knowledgeable about anxiety disorder, depression and schizophrenia than European Americans and that greater recognition predicted greater endorsement of social causes of mental illness and endorsement of professional help-seeking.

Various studies have also be done on Asians, particularly the Chinese in China (Lam, 2014; Wong, Xuesong, Poon & Lam, 2012), Macau (Found & Duarte, 2012) and Singapore (Chen, Parker, Kua, Jorm & Loh, 2000) as well as in Chinese expatriate communities (Lam, Jorm, & Wong, 2010; Wong, Lam, Poon, & Chow, 2011). This

study was done in Hong Kong. A study carried out on MHL differences between British, Malaysian and Hong Kong nationals revealed that the British were more able to "correctly" identify various mental disorders than Malaysian and Hong Kong nationals. Moreover, a higher percentage of British participants believed professional help as beneficial for the mentally ill compared to the other participants (Loo, Wong & Furnham, 2012). Other studies comparing British and Chinese nationals have also shown that the British participants were more accepting of the mentally ill in comparison to the Chinese participants. Moreover, the British participants were more inclined to support medical treatment and psychotherapy as a means for treating schizophrenia whilst Chinese participants supported alternative methods of treatment (Furnham & Chan, 2004).

Physical vs Psychological Causes

One possible explanation behind the poorer MHL and attitudes towards mental healthcare in Asian/Eastern countries could be attributed to cultural habits of somatization which is the normal, unconscious process by which psychological distress is expressed as physical symptoms.

Somatization refers to the phenomenon where people report their psychological distress physically. Equally they may choose to attribute both causes and cures physically preferring to eschew psychological or mental explanations for many psychological illnesses, Studies carried out in China have shown that the lifetime prevalence of affective disorders (0.08%) was immensely lower than in the United States (Parker, Gladstone & Chee, 2001). This was supported by Kleinman (1982) who noted a high prevalence of "neurasthenia" in China compared to the United States.

This tendency of reporting distress in physical terms can also be seen in other studies such as Tseng's (1975) study in which he examined clinical surveys of psychiatric outpatients in Taiwan who went on to be diagnosed as being mentally ill. Tseng found that in these patients' first visit to a psychiatric clinic, approximately 40% of them complained only of physical distress and 30% reported both physical and psychological distress. Similar findings have been found in Hong Kong where clinically depressed patients usually sought help when experiencing somatoform symptoms such as sleep disturbances, general tiredness, body pains and menopausal symptoms. This discrepancy in the self-reported symptoms and prompted responses show that the patients are aware of their emotional distress however, they still chose to report their distress in physical terms (Cheung, Lau & Waldmann, 1980).

Various studies have shown that people from Eastern countries were more likely to somatize in comparison to their Western counterparts. Kramer, Kwong, Lee and Chung's (2002) found that Asian American patients were more likely to express their psychological distress in physical complaints. Parker, Cheah and Roy (2001) also found similar results in a cross-cultural study examining the somatization of the symptoms of depression of Malaysian Chinese nationals and Australian Caucasians. Participants seeking help for depression were asked to nominate the most defining characteristic of their illness and the Chinese were more likely to nominate a physical symptom (60%) compared to Australian nationals (13%) in which they were more likely to report depressed mood and anxiety as their most defining complaint.

The aim of the current study was to investigate Hong Kong nationals' ability to recognize 13 different mental disorders and to examine whether there may be a relationship between MHL and their tendency to describe/ explain symptoms of mental disorders in physical terms. Three hypotheses were tested: H1: MHL will be generally

poor therefore most people would fail to "correctly" label most disorders. H2: There would be a negative correlation between participants' MHL and the occurrence of physical symptoms in participants' responses. H3: Formal education in psychology or related courses would improve MHL.

Method

Participants

A total of 299 participants were used in this study. The sample consisted of 120 males (40.1%) and 179 females (59.9%) in which the age range spanned from 18 to 72 years with a mean age of 36.3 (SD = 15.2). Most participants held an undergraduate degree (63.4%), 16.4% held a postgraduate degree, 9.1% of participants held a high school level diploma, 9.7% of participants held a middle school diploma and 1.3% held other qualifications. Fifty-one participants (17.1%) reported that they had previously undertaken a psychology related course and 115 participants (38.6%) reported that they personally knew someone with a mental disorder. No participants reported that they were or had been diagnosed with a mental disorder. Nearly all (90%) were born in Hong Kong.

Materials

The mental disorders in the vignettes included post-traumatic stress disorder (PTSD), depression, obsessive-compulsive disorder (OCD), dependent personality disorder (DPD), schizotypal personality disorder (SPD), generalized anxiety disorder (GAD), agoraphobia, bipolar disorder, social phobia, panic disorder, narcissistic personality disorder (NPD), schizophrenia and antisocial personality disorder (APD) in which all

of the vignettes were adapted from previous studies (Jorm, Christensen & Griffiths, 2005; Jorm, Wright & Morgan, 2007; Furnham & Anthony, 2010; Gong & Furnham, 2014).

For the purposes of the current study, the vignettes were altered in a way that in each vignette, the proportion of physical and psychological symptoms of the mental disorder depicted in the vignette would be roughly equal. The vignettes were also translated from English to Chinese and the gender of the fictitious people described in the vignettes was alternated between each vignette. The vignettes were then backtranslated into English by another translator and it was then checked for validity and accuracy in translation. Moreover, the vignettes were modified to be more culturally sensitive such as changing the names and contents of vignettes slightly to be more applicable and understandable to Hong Kong citizens. An example would be:

Siu Yee was 24 years old. Lately, she found it very difficult to get out of bed and was always tired. A couple of days ago, Siu Yee suddenly burst into tears during dinner and had to be excused. This didn't affect Siu Yee much as she had little appetite anyway. Siu Yee felt grim about her future and strongly believed that she wouldn't get accepted by any institution. She also believed that she would never find a person whom she'd truly fall in love with.

Each vignette was followed by two questions in which one of the questions was "Does <name> have any illness?" If the participant answered yes, then this question would be followed by "What would you diagnose <name>'s condition as". The second question was "Describe the one symptom that you think signifies <name>'s problem". At the end of the questionnaire, several follow-up questions were asked such as details on

general demographic information (age, gender and educational level). Participants were also asked to rate their own perceived MHL levels (better, same or worse) in comparison to the general public as well as whether they feel the need to improve their mental health knowledge. Moreover participants were also asked whether they had formally undertaken a psychology related course and whether they knew anyone or were personally afflicted with a mental disorder.

Procedure

Ethical approval was granted by the Research Ethics Committee of the authors' academic institution and participants provided their full informed consent prior to the start of the experiment. A pilot study with five Hong Kong participants was carried out prior to the commencement of the experiment in order to test the suitability and whether there were culturally sensitive issues in the questionnaire. The first two authors contacted people and groups by email inviting them to complete the Chinese version of the questionnaire and to forward it to their friends and relatives from as wide a background as possible. Inevitably given the demography of these authors the sample was younger and better educated than the general population which may lead to a higher rate of MHL. Most participants expressed an interest in the topic and found no difficulty completing the questionnaire. The data was collected in a two week period.

Results

A coding framework was developed in order to code the responses given at the end of each vignette. For the question "What would you diagnose <name>'s condition as", participants' responses were either coded as a "2" (correct), "1" (partially correct) or "0" (incorrect). For example, in the case of OCD, a correct answer would be "OCD" or "obsessive-compulsive disorder" or an equivalent term in Chinese. A partially correct

answer on the other hand would describe the general idea behind the mental disorder, but fail to report the "correct" technical diagnostic term. An incorrect answer would fail to or wrongly recognize the mental disorder or make no mention of the correct diagnostic terminology. This coding framework allows for one to calculate a total MHL score for each participant and a higher score would mean that the participant was more knowledgeable and had better recognition of mental disorders. A second rater independently coded the responses and the inter-rater reliability was assessed using kappa (0.85).

Insert Table 1 here

Table 1 shows the response rates for each disorder ranked by the percentage of "correct" responses. None of the mental disorders were particularly well-recognized with the majority of mental disorders having less than 15% of correct responses. OCD had the highest rate of correct responses (40.1%) and schizotypal PD having the lowest with no participant correctly identifying the disorder. A chi-squared test was carried out and the results showed that the correct response rates for the 13 mental disorders were found to be significantly different from each other (χ^2 (12, 3799) = 932.92, p < .001), with the following exceptions: all personality disorders were not significantly different between themselves (antisocial PD, dependent PD, narcissistic PD and schizotypal PD), panic disorder and all the personality disorders, bipolar disorder and all the personality disorders, agoraphobia and all the personality disorders, GAD and social phobia and lastly, schizophrenia and PTSD.

Coding framework for somatic categorization. For the responses to the question "Describe the one symptom that you think signifies <name>'s problem", they were

either coded as being "physical", "psychological", "both" or "neither". A response that was coded as "physical" would be physical in nature, for example in the case of depression, a response that would be coded as "physical" would be "feeling tired". A response that was coded as "psychological" would be psychological in nature, and using the previous example, a response that would be coded as "psychological" would be "negative thoughts". Although it was specified in the question that participants should only state one defining symptom, however some participants would report more than one more symptom and they may include physical and psychological symptoms. These responses were coded as "both". Responses that could not be classified as either "physical" or "psychological" were categorized as "neither".

Only seven mental disorders such as PTSD, GAD, depression, social phobia, agoraphobia, panic disorder and bipolar disorder were used to calculate the rate of physical attributions for the responses of the question "Describe the one symptom that you think signifies <name>'s problem". This was due to the fact that the vignettes for the other mental disorders did not include any physical symptoms thus there would not be any defining physical symptoms for these participants to report. The percentage of "physical" responses for each mental disorder was calculated. A second rater independently coded the responses and the inter-rater reliability was assessed using kappa (0.83)

Insert Table 2 here

Analysis of psychosomatic categorization. Table 2 shows the rate of physical attributions for each disorder. Reponses for panic disorder showed the highest rate with 36.8% whilst PTSD had the lowest with 4.3%. A chi-squared test was carried out and the results showed that 7 disorders were significantly different from each other (χ^2 (6, 2088) = 146.54, p < .001), with the following exceptions: GAD and agoraphobia, GAD

and bipolar disorder, agoraphobia and bipolar disorder, agoraphobia and social phobia, agoraphobia and depression, bipolar disorder and social phobia, bipolar disorder and depression, social phobia and depression, social phobia and PTSD and lastly, depression and PTSD.

A bivariate analysis was carried out to determine the relationship between MHL and the attribution of physical factors The results showed that there was a significant negative correlation between participants' MHL and the rate of physical attributions (r(266) = -.12, p = .05).

Next, an independent samples t-test was carried out and results show that there was a significant difference between participants who had a psychology background and those that did not; (t(268) = 3.56, p < .001). However, an independent samples t-test showed that there was no significant difference between those that had personally known someone with a mental disorder and those that did not; (t(263) = 1.50, p > .05).

MHL and confidence. Follow-up questions at the end of the survey asked participants to rate their own knowledge of mental disorder in which they were to define whether they were better, same or worse compared to others. 26.1% of participants viewed themselves as having better knowledge than the general public, whilst 52.5% thought they were of similar knowledge level compared to others and 21.4% thought they had poorer knowledge of mental disorders than others. A one-way ANOVA was carried out to test if their self-assessment in their own knowledge levels would predict their actual recognition of the various mental disorders in this study. This was not significant (F(2, 263) = .54, p > .05).

Discussion

Participants demonstrated a poor performance in recognizing and labelling most of the mental disorders described in the vignettes, using either the more strict "technically correct" answer as well as that using a more lay-term expression. These findings are also supported by other studies in which other Asian countries also performed equally poor (Loo et al., 2012, Furnham & Chan, 2004). The findings suggest that some mental disorders were better recognized than others such as OCD (40.1%) and depression (36.3%). This is in accordance with many other studies published in different countries (Furnham & Hamid, 2014). However, the majority of the other disorders were very poorly recognized and labelled with the rest having "correct" response rates of lower than 15%. Over half of the mental disorders had "correct" response rates of lower than 5%. This large discrepancy in recognition rates suggests that Hong Kong nationals are more familiar with certain disorders than certain others. This is surprising given the bias in this sample to better educated and younger people.

The identification rate of OCD was the best identified in this study with a "correct" response rate of 40.1%. A content analysis of participants' diagnosis of OCD showed that although many participants correctly identified the disorder, however many participants mistakenly labelled the disorder as "mysophobia", which refers to a specific phobia of contamination and germs. The fictitious person described in the vignette was described as being too preoccupied with being clean, thus this may cause confusion with the correct OCD label. Similar mislabelling can also be found in Gong and Furnham (2014) and Loo et al.'s (2012) studies in which many participants also used the term "mysophobia" or in Chinese "潔癖" to refer to the symptoms described in the vignette. From these two studies, one may imply that the term "mysophobia" may

be used colloquially to refer to people that are fixated with cleanliness. Terms such as "neat freak" and "clean freak" were also noted in participants' responses.

Most MHL studies have shown around 30-50% of people being able to recognise depression. The prevalence of depression in Hong Kong is approximately 8.4% which is comparable to the global prevalence rate (Lee, Tsang & Kwok, 2007). The "correct" response rate of the current study (36.3%) was relatively high compared to the other mental disorders yet similar results in Gong and Furnham (2014) and Loo et al.'s (2012) where the identification of depression was relatively high compared with some of the other disorders. A content analysis revealed that contrary to the findings of Cheung et al., (1980) and Kleinman (1982) which showed that patients have a tendency to report their psychological distress in physical terms, the rate of somatization was low (9%).

The identification rate for PTSD was poor with 14.8% of participants correctly identifying the disorder. A content analysis of participants' diagnosis of PTSD shows that many participants were good in their diagnosis of PTSD but could not give the exact label for the disorder. The analysis showed that many participants mistakenly labelled PTSD as "創傷後遺症" which translates to "post-traumatic disorder" instead of "創傷後心理壓力緊張症候群" which is the correct Chinese diagnostic term for PTSD. Similar to depression, the physical attribution rate for PTSD was also low which suggests that there may be increasing understanding and knowledge of PTSD in Hong Kong.

GAD was relatively not well recognized with a "correct" response rate of 12.3%. Some participants incorrectly diagnosed GAD as depression. Moreover, a large proportion of participants reported psychological symptoms as well as physical

symptoms. Participants usually reported symptoms such as "feelings of insecurity", "overly anxious or "loss of sleep".

The identification of social phobia was relatively low: 10.1%. The diagnosis of social phobia showed that many participants mistakenly labelled the person described in the vignette as suffering from "autism spectrum disorder" (ASD) which in Chinese is "自閉症". The fact that this comparison was made between social phobia and ASD shows that people are unsure of what symptoms characterize these two distinctly different disorders. Many people also viewed the person described in the vignette as just "shy" and poor at socializing.

The rate of correct responses for schizophrenia was relatively low as well in which only 10% of participants could correctly label the disorder. Many of the participants could correctly identify some of symptoms of the disorder such as "delusions" and "hallucinations" but failed to "correctly" give the diagnostic term for the illness. Moreover, a large portion of participants also labelled the person in the vignette as "distrustful and suspicious of others" and some participants even mentioned that the person was "haunted". Many participants mixed up schizotypal PD with schizophrenia in which no one "correctly" identified schizotypal PD. A content analysis of participants' diagnosis of schizotypal PD showed that although the responses were similar with schizophrenia, the occurrence of paranormal related responses was greater.

The rate of "correct" responses for bipolar disorder was relatively poor with only 4.7% of participants being able to correctly label the disorder. Many participants mislabelled the disorder as attention-deficit hyperactivity disorder (ADHD). Moreover many participants simply regarded the manic symptoms as simply being "over energetic" or "losing control" and overemphasized the elevated moods and downplayed the depressive aspect of the disorder.

The rate of "correct" responses for panic disorder and agoraphobia was relatively poor with only 2.1% and 0.4% of participants being able to correctly label the disorder respectively. Many participants were inclined to report physical symptoms (36.1%) as defining characteristics of the disorder in which common responses were "intense sweating", "increase in heartbeat" and "headache" Similarly for agoraphobia, it was common for participants to report physical symptoms such as "fatigue" or "weak heart". It was more common however, for psychological symptoms to be mentioned in describing agoraphobia. Many participants mislabelled agoraphobia as "suffering from psychosis" or "anxious" or just "phobia". As for panic disorder, several participants incorrectly mislabelled the disorder as "heart disease" or "issues with the body"...

The correct identification for antisocial PD was very low with only 2% of participants "correctly" labelling the disorder. Many labelled the disorder as just "going through a rebellious phase". It could be seen that all of the personality disorders investigate in this study showed a similar trend which all of the personality disorders were not well recognized (2% for dependent PD and narcissistic PD and 0% for schizotypal) and that not many people regarded personality disorders as mental disorders. Only 24% of participants regarded antisocial PD as a disorder and this was consistent with other personality disorders as well such as dependent PD (21.3%), narcissistic PD (15%) with the exception of schizotypal PD (64.3%).

The findings of the current study are supported by previous literature in which previous experience or formal education in a psychology related course will improve MHL (Furnham, Cook, Martin & Batey, 2011; Loo & Furnham, 2012). However, no significant correlation was found between MHL and personally knowing someone with a mental disorder.

The findings of the current study showed a small negative correlation between participants' MHL and the rate of physical attributions. One explanation for this occurrence may be that people attribute their illnesses with physical symptoms due to the stigma involved with mental disorders and or lack of understanding about mental disorders.

Limitations

The current study used a relatively small opportunistic sample which was not representative of the general public in Hong Kong. Other studies on MHL have used similar sized samples but tended to recruit people in public places using printed questionnaires (Found & Duarte, 2012; Gong & Furnham, 2014). Clearly a large (N> 1000) representative sample would be most desirable. The population in this study was younger and better educated than the general population. It is important to replicate these findings on a bigger sample.

Most but not all the participants were from people born and raised in Hong Kong., whose responses may be different from those born and raised in Mainland China.

Although precautions were taken such as adapting the vignettes to be more culturally sensitive, the study could still be accused of being ethnocentric. The vignettes that were used in the current study were adapted from studies carried out in western countries in which the vignettes depicted mental disorders that are categorized by a western classification system (DSM-IV). Thus, culture bound syndromes would have been excluded from analysis. Finally, a strict coding framework was used to code participants' responses in identifying the mental disorders presented in the current study. In order to achieve a "correct" response, one would have to produce the "correct" or near/partially correct diagnostic term using the western psychiatric language. Due to

this strict coding scheme, participants' MHL scores may have been rated too low, and under-estimated their actual MHL. Indeed it may be of great interest if Asian psychiatrists devised vignettes relevant to their culture and tested it on westerners to determine to what extent the East-West bias is more a function of methodology than actuality.

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Table 1 *Mental Disorders Ranked by the Rate of Correct Responses (%)*

Mental disorder	Correct response	Partially correct response	Incorrect response
	(%)	(%)	(%)
OCD	40.1	25.9	34
Depression	36.3	2.0	61.7
PTSD	14.8	20.4	64.8
GAD	12.3	5.5	82.3
Social phobia	10.1	8.4	81.4
Schizophrenia	10.0	31.1	58.8
Bipolar disorder	4.7	0.0	95.3
Panic disorder	2.1	2.4	95.3
Antisocial PD	2.0	1.7	96.3
Dependent PD	2.0	0.7	97.3
Narcissistic PD	2.0	0.7	97.3
Agoraphobia	0.4	12.6	87.0
Schizotypal PD	0.0	0.0	100

Table 2 *Mental Disorders Ranked by the Rate of Physical Attributions (%)*

Mental disorder	Rate of Physical Attributions(%)			
Panic disorder	36.8			
GAD	19.5			
Agoraphobia	16.2			
Bipolar Disorder	15.2			
Social phobia	10.7			
Depression	9.0			
PTSD	4.3			