KNOWLEDGE, ATTITUDES AND BEHAVIORS TOWARDS MENTAL ILLNESS AMONG ADULT COLLEGE STUDENTS

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ABSTRACT

OBJECTIVE: This paper aimed to describe and correlate the knowledge, attitudes and behaviors towards mental illness among adult college students. **METHODOLOGY:** Experts from the department of Psychiatry reviewed the Mental Health Knowledge Schedule (MAKS), Community Attitude towards the Mental Illness III(CAMI-III) and Reported and Intended Behavior Scale (RIBS) appropriateness for the intended population. These were administered to randomly selected 260 adult college students from a selected university in Metro Manila. Data was analyzed using mean, frequencies, item analysis and correlation coefficient. **RESULTS:** Mean score for knowledge was 48.17 of 60. Mean scores for authoritarianism, social restrictiveness, benevolence and community mental health ideology were 21.67, 18.82, 43.26 and 41.38 of 50. Mean score for nondiscriminatory behavior was 17.39 of 20. Nondiscriminatory behavior positively correlated with benevolence (r=0.34) and community mental health ideology (r=0.45). Nondiscriminatory behavior negatively correlated with authoritarianism (r=-0.34) and social restrictiveness (r=-0.39). Knowledge positively correlated with benevolence (r=0.3) and negatively correlated with social restrictiveness (r=-0.35). **CONCLUSION:** College students have high mental literacy but were confused with stress and grief. They were tolerant, respectful and inclusive of the mentally ill's role in society but half viewed mental hospital as indispensable and were guarded regarding the mentally ill's role in young children, and a quarter had fallacies with mental illness recognition and etiology. Educational interventions only improve some attitudes but have no effect on discriminatory behaviors. Instead, behavioral interventions holistically improve attitudes. Compared with previous generations, the challenge in reducing discrimination is to improve attitudes instead of knowledge. Hence, stigma may not only vary by culture, but may also vary by generation.

KEYWORDS: *Stigma, Mental Health, Mental Illness, College, Students*

INTRODUCTION

Stigmatizing attitudes towards mental illness were identified by students as one of the main barriers in the utilization of mental health resources[1]. A comprehensive approach to suicide prevention and mental health promotion includes the development of measures that increase help seeking. Stigma is a barrier for university students who hesitate to seek help for mental health concerns. Local studies regarding stigma among students is sparse, thus, collecting new data will yield a deeper local understanding of stigma[2, 3]. It can be seen as a term including problems of knowledge, attitudes and behavior[4].

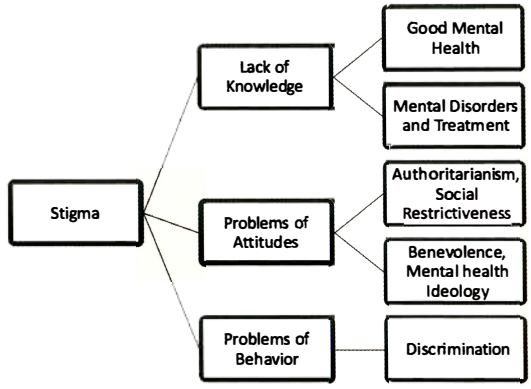

FIGURE 1. Stigma Framework[4, 5, 6]

Public prejudice and discrimination against them are common and deeply socially damaging. This can contribute to negative outcomes, perpetuate self-stigmatization and contribute to low self-esteem. It leads to low rates of help-seeking, lack of access to care, under-treatment, material poverty and social marginalization. These continue today and are expressed in different ways in different cultures[4,5]. Among Filipinos, studies show that stigma is negatively correlated with the intention to seek professional help[6]. Thus, a cycle of alienation and discrimination can become the main impediment to recovery[4, 5].

REVIEW OF RELATED LITERATURE

Stigma among College Students

The relationship of stigma to help-seeking in college students is complex. In the United States, half of college students would encourage a friend to seek help for emotional issues but fewer than one-fourth would seek help themselves. In Canada, only 20% to 36% of students receive professional help for their mental illness. Perceived public stigma has been found to be higher among student groups[2,3].

Knowledge towards Mental Illness

Mental health knowledge includes knowledge about how to obtain and maintain good mental health as well as knowledge about mental disorders and their treatments. Improved mental health literacy promotes early identification of mental disorders, increase the use of health services and enable the community to achieve better mental health[7].

Attitudes towards Mental Illness

People with mental illness commonly feel devalued, dismissed and dehumanized[4, 8]. There are four types of attitudes towards mentally ill patients. These are authoritarianism, social restrictiveness, benevolence and community ideology towards the mentally ill. Authoritarianism is a view that considers the mentally ill of an inferior class requiring coercion. Benevolence is a paternalistic, sympathetic view of patients based on humanistic and religious principles. Social restrictiveness is a view of the mentally ill as a threat to society. Community mental health ideology is a view of mental illness as an illness like any other that deserves to be treated in the community[9].

Behavior towards Mental Illness

Behaviors are central to discrimination and the most meaningful outcome from the perspective of mental health service users. Discriminatory behaviors include devaluing, rejecting and excluding the mentally ill. The importance of discriminatory behavior has been clear for many years in terms of: the personal experiences of service users, the devastating effects upon personal relationships, parenting and child care, education, training, work as well as housing[4,10].

Relationship of Knowledge, Attitudes and Behavior

Correlation between knowledge, attitudes and behaviors towards Mental Illness have shown mixed results. The Philippines was one of the seven developing countries that participated in the WHO Study on Strategies for Extending Mental Health Care in 1976 to 1981. It revealed that acquisition of concepts and skills in mental health reversed general health workers' negative attitudes and allowed them to care for patients consulting them[11]. Improved knowledge about mental health and mental disorders may increase the use of health services[11, 12, 13]. Educated people may less likely endorse discrimination[12]. Stronger intentions to seek help are predicted by positive attitudes and better knowledge about mental illness[13]. Nevertheless, a recent meta-analysis concluded that educational campaigns are of low priority. If the public understands mental illnesses but still reject individuals with mental illness, then legal prescriptions that bar exclusion coupled with legal proscriptions to prevent or punish those who violate them are needed. These translate into fewer individuals endorsing discrimination[14].

OBJECTIVES

The general objective of this study was to describe and correlate the knowledge, attitudes and behaviors towards mental illness of adult college students using the Mental Health Knowledge Schedule (MAKS), Community Attitude towards the Mental Illness III (CAMI-III) scale and Reported and Intended Behavior Scale (RIBS)

The specific objectives were to describe the following about the adult college students: sociodemographic profile; knowledge towards mental illness using the MAKS, attitudes towards mental illness using the CAMI III scale; the behaviors towards mental illness using the RIBS; and to determine if there is a correlation between knowledge, attitudes and behaviors towards mental illness.

METHODOLOGY

The study was done on 1 selected university in Metro Manila. It employed a cross-sectional methodology. It was reviewed by the selected university's department of Psychiatry research committee and the university's research ethics board. More than 3 subject matter experts, composing of fellows of the Philippine Psychiatric Association, commented and reviewed the questionnaires and methodology. These experts unanimously agreed that the MAKS, CAMI-III and RIBS had the essential and appropriate questions needed to assess the knowledge, attitude and behavior of local adult college students.

Sample size was computed using the prevalence of stigma in Bhugra's Principle of Social Psychiatry[4]. Total computed sample size was 245 with a standard normal variate (at 5% type 1 error ($P<0.05$), at 1% type error ($P<0.01$) and an absolute error or precision (5% in this study). Target sample size was adjusted for 10% dropout rate, hence, the final target sample size was 269. The sample size was divided according to the percentage of students from the participating colleges over the total number of students from all the colleges. A list of total students from each of the colleges was acquired from the university registrar. Data collection from each college was stopped once the computed number of participants from the participating college was reached.

Two hundred sixty participants were randomly recruited. Participants were composed of duly enrolled college students aged 18 years old and above from various year levels and college courses. The participants were approached by the researcher. They were fully informed of all pertinent aspects of the study prior to participation. They were given ample time to review the informed consent form and allowed to ask any questions and receive answers before they made their decision. Once the participant agreed and signed the informed consent form, the self-report questionnaires composing of the Sociodemographic Questionnaire, MAKS, CAMI-III and RIBS were administered and collected. Categorical data was summarized using numbers and frequencies. Continuous data was summarized by mean and standard deviation. Knowledge, attitudes and behaviors towards mental illness were analyzed using Correlation Coefficient and descriptive item analysis.

Description of Tools

Mental Health Knowledge Schedule (MAKS) is one of the

most frequently used scales for assessing mental health literacy[15, 16]. It is free to be used for research purposes. It demonstrated moderate to substantial test–retest reliability and consensus validity[17]. It is a mental health knowledge related measure that comprises domains of relevant evidence based knowledge in relation to stigma reduction, which can be used in conjunction with attitude and behavior related measures with the general public. It is based on literature review and expert consultation (including stigma researchers and service users). It comprises of 6 stigma-related mental health knowledge areas: help-seeking, recognition, support, employment, treatment and recovery as well as 6 items, which inquire about knowledge of mental illness conditions. It can be self-administered either in person or online. MAKS items are scored on an ordinal scale (1 to 5). Items, in which the respondent strongly agrees with a correct statement have a value of 5 points while 1 point reflects a response, in which the respondent strongly disagrees with a correct statement.

Community Attitudes Toward Mental Illness (CAMI) is one of the most widely used scales measuring stigma[15, 16]. It is free to be used for research purposes. It has a strong construct, predictive, internal and external validity[18]. It consists of 40 items with four sub scales: authoritarianism, benevolence, social restrictiveness and community attitudes towards mental health. Benevolence and community ideology towards mental health sub scales are referred as positive attitudes while, authoritarianism and social restrictiveness are referred to as negative attitudes. There are 10 items for each subscale and each consists of 5 positive statements and 5 negative statements. Respondents were required to rate how much they strongly disagreed or strongly agreed with each statement. Each item was scored using Likert's scale from 5- strongly agree, 4-agree, 3- neutral, 2- disagree and 1- strongly disagree. Negative statements for each sub scale were reversed-coded. Total score was calculated to determine the attitudes towards the mentally ill patients

Reported and Intended Behavior Scale (RIBS) – a brief instrument that has demonstrated overall strong test-retest reliability, consensus validity and internal consistency. It is free to be used for research purposes[10]. The RIBS is a measure of mental health stigma related behavior, which can be used with the general public and is feasible to use with large populations. It can be self-administered either in person or online. Items 1-4 only calculate the prevalence of behaviors that respondents may or may not have engaged in thus, they are not given a score value. Items 5-8 are scored on an ordinal scale of 1-5. Items that the respondent strongly agreed with i.e. that they could engage in such stated behavior, had a value of 5; while individuals who strongly disagreed that they could engage in the stated behavior, received 1 point. The total score for each participant was calculated by adding together the response values for items 5-8. 'Don't know' was coded as neutral i.e. 3 for the purposes of determining a total score.

RESULTS

Sociodemographic Profile of the Participants

The mean age of the participants was 20.11 years with a standard deviation of 1.98. Majority were female (62,69%), Roman Catholic (75%), in third year of college (44%) and were living within Metro Manila (58.14%). (Table 1, 2, 3)

TABLE 1. Gender of participants (N =260)

Gender	#	%
Male	97	37.31
Female	163	62.69
Total	260	100.00

TABLE 2. Religion of participants (N =260)

Religion	#	%
Roman Catholic	195	75
Christian	33	12.69
Protestant	6	2.31
Methodist	2	0.77
Jehovah's Witness	0	0
Islam	1	0.38
INC	4	1.54
Baptist	3	1.15
Buddhist	1	0.38
Atheist	4	1.54
Agnostic	4	1.54
Adventist	0	0
No information	7	2.69
Total	260	100

TABLE 3. Address of participants (N =260)

Permanent Address	#	%
Within Metro Manila	150	58.14
Outside Metro Manila	101	39.15
No information	7	2.71

Knowledge, Attitudes and Behavior towards Mental Illness

The mean score for knowledge was 48.17 out of a maximum of 60. The mean scores for the different dimensions of attitude, namely authoritarianism, social restrictiveness, benevolence and community mental health ideology were 21.67, 18.82, 43.26 and 41.38 respectively out of a maximum of 50. The mean score for intended non-discriminatory behavior was 17.39 out of a maximum of 20. Although the variables being studied were ordinal, it can be posited that students had high levels of knowledge, benevolence, community mental health ideology and intended non-discriminatory behavior, but

had low levels of authoritarianism and social restrictiveness. (Table 4)

TABLE 4. Mean Scores on MAKI, CAMI & RIBS (N=260)

	Mean ±sd	95% CI	Max Score
Knowledge (MAKI)	48.71 ± 3.60	48.27, 49.16	60
Attitude (CAMI)			
Authoritarianism	21.67 ± 4.25	21.15, 22.18	50
Social Restrictiveness	18.82 ± 4.68	18.25, 19.39	50
Benevolence	43.26 ± 4.50	42.71, 43.81	50
Community Mental Health Ideology	41.38 ± 4.44	40.83, 41.92	50
Behavior (RIBS)	17.39 ± 2.31	17.11, 17.67	20

Knowledge towards Mental Illness

Majority of students were knowledgeable regarding employment, support, treatment, recovery, help seeking and different mental illnesses. However, there were notable misconceptions[4]. Almost one of two students believed that stress and grief were actual mental illnesses. One of four students believed that most people with mental health problems go to a healthcare professional to get help. Also, one out of ten students did not know what advice to give friends with mental health problems so as to get them professional help. Lastly, one in twenty students had misconceptions regarding drug addiction and employment.

Attitudes towards Mental Illness

Majority of students believed that mental illness was a medical condition that could happen to anyone and not simply a lack of willpower or discipline. They recognized that mental health interventions needed to be geared toward inclusion, instead of coercion and isolation. About half of students had no prejudice in the recognition of the mentally ill. Likewise, they believed that mental health services should be available in the community. Only one of four students considered mental hospitals as outdated. However, two of five students believed that mental hospitals were still useful in providing services. While, one of four students believed that mentally ill patients needed to be treated like young children. One in five considered mental disturbance as a threat requiring hospitalization. Lastly, one in ten believed that the cause of mental illness was the lack of discipline and willpower. Overall, this suggested that students were compassionate and considerate towards the mentally ill but almost half still considered mental institutions as a necessary means of treatment while a quarter had fallacies in the treatment and recognition of mental illnesses.

Majority of students were sympathetic with the suffering of mentally ill patients in our society. They felt responsible in relieving this travail and support the inclusion of mentally ill patients in communities. They presumed that the government should increase expenditure for mental health to support the insufficient existing services. However, one in ten believed that there were sufficient services for the mentally ill, and one in twenty believed that the existing mental hospitals were adequate facilities where the mentally ill could be cared for. Based on these results, most students were sympathetic towards the mentally ill.

Majority of students acknowledged that mentally ill patients have the right to be employed, to have a family, to take part in their communities and in general, to live a normal life. However, a notable half was indifferent of giving mentally ill patients responsibility for caring for young children. Also, one in twenty opposed giving bureaucratic responsibility to mentally ill patients. Generally, students were inclusive and respectful of the mentally ill patients' rights and obligations in society but were guarded towards their role in nurturing young children.

Majority of students considered that mental health services should be available in the community. Likewise, they were receptive of mental health services if made available in their respective neighborhoods. They believed that being part of a normal community was helpful and therapeutic for mentally ill patients. However, one in ten opposed the establishment of local mental health services near their neighborhood, while one in twenty believed that mentally ill patients were dangerous to their community.

Behavior towards Mental Illness

Findings showed that two of three students had worked with someone with a mental health problem, while one of four had lived with someone with a mental health problem. Majority of the students were willing to work, live, have a neighbor or close friend with a mental illness in the future. However, it is noteworthy that one in twenty students were aversive with working with the mentally ill in the future.

Relationship of Knowledge, Attitudes and Behavior

This study indicated that knowledge only improved certain aspects of attitudes—benevolence and social restrictiveness—but would not change their behavior towards the mentally ill. It is noteworthy however, that community mental health ideology and non-discriminatory behavior were positively correlated with knowledge but results were statistically insignificant. Nonetheless, results also showed that encouraging benevolence among students may increase the acquisition of knowledge regarding mental health. Moreover, non-discriminatory behaviors improved positive attitudes and decreased negative attitudes. (Table 5)

TABLE 5. Correlation Coefficient of Knowledge, Attitudes & Behavior

	Knowledge	Authoritarianism	Social Restrictiveness	Benevolence	Com MH Ideology
Knowledge					
Authoritarianism	-0.2222 0.0004				
Social Restrictiveness	-0.3512 <0.0001	0.5882 <0.0001			
Benevolence	0.3064 <0.0001	-0.5489 <0.0001	-0.6742 <0.0001		
Community MH Ideology	0.2882 <0.0001	-0.5194 <0.0001	-0.6887 <0.0001	0.5971 <0.0001	
Behavior	0.2133 0.0006	-0.3490 <0.0001	-0.3988 <0.0001	0.3483 <0.0001	0.4572 <0.0001

DISCUSSION

Knowledge towards Mental Illness

Most adult college students were literate regarding good mental health and mental illnesses, but half were confused about stress and grief. This reflects that the local college mental health education addresses most stigma-related misconceptions. This college education resulted in a modern understanding of mental disorders shifting from the traditional Asian paradigm that mental disturbance is caused by evil spirits[4].

Attitudes towards Mental Illness

First of these attitudes is authoritarianism, which is a view of the mentally ill as inferior requiring coercive handling[18]. It may be reasonable that students still see mental hospitals as a necessity since there are scarce community based services even in highly urbanized areas despite the government's initiatives such as the National Program for Mental Health[11]. Moreover, their view of the mentally ill as potentially dangerous and easily recognizable may have been influenced by schizophrenic vagrants seen roaming near university campuses[4].

Benevolence is a paternalistic, sympathetic view of patients based on humanistic and religious principles[18]. This awareness and sympathy towards the suffering of the mentally ill probably stemmed from the recent flourishing mental health campaigns among the youth such as peer counselor groups and Youth for Mental Health Coalition. These campaigns provided a stage for mentally ill students to share their suffering and its consequences. Thus, a shared experience from an individual from the same generation may have invoked a stronger sense of sympathy among the youth[4, 11].

Social restrictiveness is a view of the mentally ill as a threat to society[18] but most students were actually sympathetic towards the mentally. This inclusive attitude was probably brought about by the students' appreciation of successful mental health interventions as seen from the improvement of their fellow students suffering from mental disorders. Thus, these stories of success fostered hope and normalization towards mentally ill patients leading to a more inclusive society[4].

Community mental health ideology is a medical view of mental illness as an illness like any other that deserves to be treated in the community[18]. Most students were receptive and cognizant of the benefits of community based mental health services. These services not only improved treatment outcomes but also promoted social relationships through limiting the disengagement of patients from their families[4]. This attitude probably rooted in the Filipino Culture's emphasis on the maintaining close family bonds regardless[6, 11]. With this awareness of the youth regarding the importance of community-based services, there is a promising future for the improvement of local mental services.

Behavior towards Mental Illness

Most students were receptive towards the mentally ill across different dimensions of their life in the future. The favorable behavior towards the mentally ill reflects that the current discrimination reduction interventions implemented towards college students were effective. The selected university's mental health program started four years prior to the conduction of this study through the collaboration of stakeholders. Since its inception, it has provided mental health services such as provisions for psychiatric consultation and counseling. It has also conducted education and training such as peer counselor training and mental health education for teachers and staff. It has also produced researches of mental disorder and its services that aim to understand the prevalence and factors affecting mental disorders among

college students and improve the services provided by the clinical arm[1].

Relationship of Knowledge, Attitudes and Behavior

Studies on stigma and mental illness have been carried out in many countries but few have included non-western nations[4]. Moreover, most work on mental illness and stigma has been descriptive, primarily through the use of attitude surveys or the portrayal of mental illness by the media. Hence, further work was needed to understand the complex relationships between the three elements of stigma and the development of evidence-based tools and interventions which address discrimination[4]. Previous co-relational studies on knowledge, attitudes and behaviors regarding mental illness have shown mixed results[11, 14].

This study indicates that knowledge improved only certain aspects of attitudes i.e. benevolence and social restrictiveness but had no effect on their behavior towards the mentally ill. These findings were consistent with cited literature - that knowledge interventions such as educational campaigns can help in reducing stigma and discrimination[14] yet even so, they may still reject and exclude the mentally ill in their communities. Thus, educational campaigns are low priority in reducing discrimination[14].

On the contrary, non-discriminatory behaviors improved positive attitudes and decreased negative attitudes. Hence, behavioral intervention is desirable in improving prejudices among college students. Consequently, if a benevolent and inclusive attitude towards the mentally ill are promoted, discriminatory behavior will be reduced. These results contradict the previous WHO study, which showed that in the Philippines knowledge improved behavior[11]. Hence, there should be a shift in addressing stigma among today's young generation.

Recommendations for the Selected University's Stakeholders

Existing mental health services and campaigns available for university students should be enriched by the data available in this study. Misconceptions regarding help seeking, stress and grief can be addressed through educational interventions[4, 12]. Acquisition of these concepts can be enhanced by promoting a sympathetic and humanistic view towards the mentally ill. If the aim of the selected university is to improve the attitudes of adult college students regarding mental illness, focus should be on behavioral interventions. As cited in literature, the development of interventions regarding discrimination towards mentally ill patients should focus on prescriptions that bar exclusion coupled with proscriptions to prevent or punish those who violate them[14]. These behavioral interventions can be done through a discussion among the stakeholders so as to set codes of conduct, standards of behaviors, fines and penalties that aim to regulate and promote not only the inclusion of the mentally ill but also to maintain good mental health among university stakeholders. With the improved behavior that results, better attitudes should spring forth.

Recommendations for Advocates and the Government

Compared with previous generations, the current challenge in discrimination reduction is to improve attitudes, instead of knowledge[11]. Various strategies can be done such as promoting the humanistic treatment of the mentally ill in traditional and social media since the young generation are highly engaged in these technological advances[4]. A positive and normalizing portrayal of mental illness can be done in media outlets. Moreover, legislation and administrative policies can include incentives to companies which have mental health policies. Likewise, establishment of community-based services through increased government expenditure will not only address the needs of patients such as schizophrenic vagrants, but will also improve the view and hope of the youth for people who suffer from mental illnesses. Thus, improvement of mental health policy at a national level is needed to address the various aspect of stigma.

Recommendations for Future Researches

Further research can concentrate on comparing the effects of mental health courses in knowledge, attitudes and behavior; and the different knowledge, attitudes and behavior among the different colleges and year level. It is also important to evaluate those 18 years and below as they are also part of the student population. Since the study was done in a single university, future studies can include other universities. Finally, the correlation of this study can be explored through prospective and non-prospective studies that compares educational from behavioral interventions in improving attitudes towards mental illness.

Limitations

Data analysis according to colleges and year level with this sampling was skewed towards the upper year level. It should also be noted that the scope of this study only covered a young adult population in an urban area, thereby limiting its power when compared to the multinational WHO study. However, the result was still a representation of a young adult population in the selected university. The results, especially for knowledge, might have reflected the selected university's focus on health sciences courses, thus, most students have access and are taught mental health concepts and illnesses. Nonetheless, the sampled population comprised of students from both health science and non-health science related courses.

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