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Attitudes of Japanese Pharmacy Students Toward Mental Illness

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Abstract

Background: Studies have revealed high levels of stigma toward mental illness in Japan, but no study has been conducted with pharmacy students.

Aims: To perform an exploratory study regarding the attitudes of Japanese pharmacy students toward mental illness.

Methods: All students (n=669) at one Japanese pharmacy school were invited to participate in a survey that consisted of the Whatley Social Distance Scale, the Index of Attitudes Toward the Mentally Ill, and demographic questions.

Results: The response rate was 100%. All but two items on the scales received overall positive responses. Female students, final -year students, those who had experienced a mental illness, and those who knew a family member or friend who had experienced a mental illness held more favorable mental illness attitudes than students without those characteristics.

Conclusion: The students held generally favorable mental illness attitudes that were comparable to those previously reported in American pharmacy students.

Keywords: *attitude, Japan, mentally ill persons, pharmacy students, social distance*

Introduction

Stigmatization of mental illness can be manifested at many different levels and can have negative effects on patients' psychological well-being, social functioning, and treatment decisions (Ng, 1997). Stigma is one factor in the lack of acceptance of mental illness and its treatment in Asian cultures (Ng, 1997). Negative attitudes toward mental illness have been especially recognized in Japan, where mental illness is often seen as a lack of willpower for which the patient and the patient's family feels shamed (Ng, 1997; Desapriya & Nobutada, 2002). Indeed, several studies have revealed higher levels of stigma in Japan relative to other countries (Kurihara et al., 2000; Kurumatani et al., 2004; Griffiths et al., 2006). Interestingly, the Japanese Society of Psychiatry and Neurology officially approved a name change for schizophrenia in 2002 in part due to the stigma associated with the disorder in that country (Sato, 2006). Unfortunately, such stigma is not confined to the general population, as Japanese healthcare professionals have revealed negative mental illness attitudes as well (Hori, Richards, Kawamoto, & Kunugi, 2011).

Pharmacists are important healthcare professionals who can provide valuable services for mentally ill patients, but a recent study linked pharmacists' willingness to provide pharmaceutical care services for mentally ill patients with attitudes toward mental illness (Rickles, Dube, McCarter, & Olshan, 2010). Thus, the attitudes of pharmacists and pharmacy students toward mental illness is of vital importance. Practically all published studies concerning the attitudes of pharmacy students toward mental illness have emanated from the United States (Crismon, Jermain, & Torian, 1990; Jermain & Crismon, 1991; Buhler & Karimi, 2008; Einat & George, 2008; Cates, May, & Woolley, 2009; Gable, Muhlstadt, & Celio, 2011; Dipaula, Qian, Mehdizadegan, & Simoni-Wastila, 2011) and Australia (Bell, Johns, & Chen, 2006; Bell, Johns, Rose, & Chen, 2006; O'Reilly, Bell, & Chen, 2010; O'Reilly, Bell, Kelly, & Chen, 2011), and these studies have revealed generally favorable yet less than ideal attitudes toward mental illness. However, one study involved pharmacy students from six countries (Australia, Belgium, Finland, India, Estonia, and Latvia) and found that sub-optimal mental illness attitudes were common in all of the countries (Bell et al., 2008). Therefore, no study has examined the mental illness attitudes of pharmacy students in Japan. The objective of the present study was to document such attitudes.

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Method

The study was a voluntary and anonymous survey of students at the pharmacy school of Meijo University, Nagoya, Japan. The study was approved by the Samford University Institutional Review Board and the Meijo University Institutional Review Board.

Pharmacy students in all 3 classes were invited to participate in the survey. The survey was composed of 3 sections: questions regarding gender, year in pharmacy school program, and previous exposure to mental illness; the Whatley Social Distance Scale; and the Index of Attitudes Toward the Mentally Ill. Whatley's Social Distance Scale is an 8-item scale that measures avoidance reactions toward mentally ill persons (Whatley, 1958-59). Respondents choose either "agree", "disagree", or "not sure". Favorable responses are "agree" on some items and "disagree" on others. Items are scored based on the following: favorable responses = 1; "not sure" responses = 2, and unfavorable responses = 3. Total scores thus range from 8 to 24, with lower scores representing more positive attitudes. The Index of Attitudes Toward the Mentally Ill is an 11-item scale that measures rejection of negative statements toward the mentally ill (Hiday, 1983). Each item is scored on a 5-point Likert scale from 1 ("strongly agree") to 5 ("strongly disagree"), so total scores range from 11 to 55, with higher scores representing more positive attitudes. Some items are positive statements, so responses are reversed for scoring purposes. These scales have been used in a number of prior studies that have examined mental illness attitudes of pharmacists or pharmacy students (Crismon, Jermain, & Torian, 1990; Jermain & Crismon, 1991; Cates, May, & Woolley, 2009; Bryant, Guernset, Pearce, & Hokanson, 1985; Cates, Burton, Wolley, 2005).

The survey instrument had to be translated from English to Japanese. Two independent bilingual translators were used to ensure accuracy. The first translator converted the survey from English to Japanese, and then the second translator converted the survey from Japanese back into English. The English back-translation was then compared to the original survey by the investigators.

Data were analyzed using Minitab Statistical Software Release 15.1.30.0. Descriptive statistics were calculated and mean composite scores and mean individual item responses were compared. For questions with two groups, 2-sample t-tests were used, and questions with multiple groups, 1-way ANOVA tests were used for analyses. Statistical significance was set at $p<0.05$.

Results

There were 669 students invited to participate in the survey, and there were 669 participants. Thus, the response rate was 100%. Characteristics of the participants are shown in Table I.

Mean responses to individual items on the 2 scales are shown in Tables II and III. In general, responses revealed favorable attitudes toward mental illness (i.e., less than midpoint score of 2.00 on the Whatley Social Distance Scale and greater than midpoint score of 3.00 on the Index of Attitudes Toward the Mentally Ill); only 1 item per scale received overall negative responses. The mean total score on the Whatley Social Distance Scale was 14.0 ± 3.2 and the mean total score on the Index of Attitudes Toward the Mentally Ill was 38.4 ± 4.7.

Table I: Characteristics of Participants

Characteristic	Number (%)
Gender:	
Female	397 (59.3)
Male	272 (40.7)
Year in pharmacy school program:	
First	253 (37.8)
Second	214 (32.0)
Third	202 (30.2)
Has visited a mental hospital:	
Yes	70 (10.5)
No	599 (89.5)
Has experienced a mental illness:	
Yes	27 (4.0)
No	642 (96.0)
Knows a family member/friend that has experienced a mental illness:	
Yes	182 (27.2)
No	487 (72.8)
Has been admitted to a mental hospital:	
Yes	4 (0.6)
No	665 (99.4)
Knows a family member/friend that has been admitted to a mental hospital:	
Yes	38 (5.7)
No	630 (94.3)
Not answered	1 (0.0)

Table II: Responses on Whatley Social Distance Scale

Question	Mean ± SD
It is best not to associate with people who have been in mental hospitals.	1.49 ± 0.59
It is wrong to shy away from people who have had mental disorders.	1.51 ± 0.70
It would bother me to live near a person who has been in a mental hospital.	1.66 ± 0.63
I would not ride in a taxi driven by someone who had been in a mental hospital.	1.87 ± 0.76
I would rather not hire a person who had been in a mental hospital.	1.81 ± 0.69
School teachers who have been in mental hospitals should not be allowed to teach.	1.41 ± 0.62
I would be against any daughter of mine marrying a man who had been to see a psychiatrist about mental problems.	1.90 ± 0.73
If I needed a baby sitter, I would be willing to hire a woman who had been going to see a psychiatrist.	2.40 ± 0.61

Female students scored more favorably than male students on both scales (Table IV). Those students in the final year of the pharmacy program scored more favorably than those students in the first or second year on the Index of Attitudes Toward the Mentally Ill but not the Whatley Social Distance Scale. Students who had experienced a mental illness or who knew a family member/friend that experienced a mental illness scored more favorably on both scales. Finally, students who knew a family member/friend that had been admitted to a mental institution scored more favorably on the Whatley Social Distance Scale but not the Index of Attitudes Toward the Mentally Ill.

Table III: Responses on Index of Attitudes Toward the Mentally Ill

Question	Mean ± SD
Most patients in mental hospitals are not dangerous.	3.17 ± 0.90
It is easy to recognize someone who once had a serious mental illness.	3.61 ± 0.78
We cannot expect to understand the bizarre behavior of mentally ill persons.	2.88 ± 1.00
Mentally ill people are not intelligent.	3.92 ± 0.82
Most mentally ill persons haven't the ability to tell right from wrong.	3.55 ± 0.84
Most mentally ill people don't care how they look.	3.44 ± 0.90
Most people have mental/emotional problems.	4.07 ± 0.77
Mental illness is nothing to be ashamed of.	3.59 ± 0.83
Mentally ill people are ruled by their emotions; normal people by their reason.	3.37 ± 0.93
A mentally ill person is in no position to make decisions about even everyday living problems.	3.40 ± 0.79
There is nothing about mentally ill people that makes it easy to tell them from normal people.	3.55 ± 0.85

Table IV: Effects of Gender, Year in Pharmacy School, and Exposure to Mental Illness

Characteristic	Score on Whatley Social Distance Scale	p-value	Score on Index of Attitudes Toward the Mentally Ill	p-value
Gender				
Female	13.71 ± 3.01	0.001	38.92 ± 4.55	0.001
Male	14.53 ± 3.34		37.74 ± 4.76	
Pharmacy school class:				
P-1	14.12 ± 3.22		38.16 ± 4.92	
P-2	14.22 ± 3.28	0.295	38.02 ± 4.30	0.014
P-3	13.76 ± 2.98		39.23 ± 4.65	
Has visited a mental hospital:				
Yes	13.69 ± 3.22		39.03 ± 5.05	
No	14.09 ± 3.16	0.315	38.37 ± 4.62	0.264
Has experienced a mental illness:				
Yes	12.30 ± 3.82	0.003	40.89 ± 5.48	0.005
No	14.12 ± 3.12		38.34 ± 4.61	
Knows a family member/friend that has experienced a mental illness:	13.46 ± 3.17			
Yes	14.27 ± 3.15	0.003	39.53 ± 5.23	0.000
No			38.03 ± 4.38	
Has been admitted to a mental hospital:				
Yes	14.75 ± 6.08	0.656	39.50 ± 10.66	0.649
No	14.04 ± 3.15		38.43 ± 4.63	
Knows a family member/friend that has been admitted to a mental hospital:				
Yes	15.16 ± 3.23	0.027	38.24 ± 5.84	0.804
No	13.99 ± 3.15		38.43 ± 4.57	

Discussion

This was the first study of the attitudes of Japanese pharmacy students toward mental illness. Based upon available literature concerning the Japanese cultural view of mental illness as well as previous reports of relatively greater mental illness stigma in Japan, we predicted that Japanese pharmacy students would report rather negative attitudes in this realm. Surprisingly, the Japanese pharmacy students held moderately positive attitudes in terms of both social distance and stigmatization. In fact, of the 19 items on both scales, only 2 received overall negative responses. The mean score on the Whatley Social Distance Scale (14.0) was better than that reported in one study of American pharmacy students (14.4-15.1 across 4 classes) (Cates, May, & Woolley, 2009), but poorer than those reported in two others (13.0 and 13.6) (Crismon, Jermain, & Torian, 1990; Jermain & Crismon, 1991). The mean score on the Index of Attitudes Toward the Mentally Ill (38.4) was remarkably similar to scores reported in American pharmacy students (37.6-39.2 across 4 classes) (Cates, May, & Woolley, 2009). Taken as a whole, the Japanese pharmacy students held attitudes toward mental illness that were at least comparable to those previously reported in American pharmacy students.

Female students, students who had experienced a mental illness, and those who knew a family member or friend who had experienced a mental illness held more favorable mental illness attitudes than students without those characteristics. Some studies involving American pharmacy students have also found more favorable attitudes in females (Cates, May, & Woolley, 2009) and those with previous exposure to mental illness (Crismon, Jermain, & Torian, 1990; Cates, May, & Woolley, 2009). The third-year students had more favorable scores on both scales relative to the first- and second-year students, but only the Index of Attitudes Toward the Mentally Ill was statistically different. Whereas the second-year students had already received didactic instruction concerning major psychiatric illnesses, the third-year students had additional educational experiences that included a role-playing exercise in which each student assumed both the role of the pharmacist caring for a mentally

ill patient and the mentally ill patient receiving care from a pharmacist. This finding is consistent with the perception among researchers that attitudes of pharmacy students toward mental illness are relatively unaffected by traditional classroom instruction but are sensitive to educational techniques that are designed to foster a deeper understanding of mental illness and patients' experiences with their illnesses (Cates, May, & Woolley, 2009).

It is important to note that although the mental illness attitudes expressed in this study were generally favorable, they were still sub-optimal. Japanese pharmacy educators are encouraged to further examine this issue, and they should seek to implement curricular interventions that optimize pharmacy students' attitudes toward mental illness. Various studies in other countries have shown that the use of peer-level patient presenters (Buhler & Karimi, 2008), mental health consumer educators (Bell, Johns, Rose, & Chen, 2006; O'Reilly, Bell, & Chen, 2010), and other techniques designed to foster a deeper understanding of patients' experiences with mental illness (Einat & George, 2008; Gable, Muhlstadt, & Celio, 2011; Dipaula, Qian, Mehdizadegan, & Simoni-Wastila, 2011) can improve attitudes toward mental illness.

Strengths of our study include an ideal response rate and use of standard attitudinal scales. However, because we surveyed students at just one pharmacy school, the generalizability of the findings to other pharmacy schools in Japan is unknown. Another limitation is that the scales utilized do not distinguish between types of mental illness (e.g., schizophrenia vs. depression), so it is possible that different results might have been obtained had there been such demarcation. Finally, as this was an exploratory study only, we did not make use of a control group.

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