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# Pharmacy Students' Attitude and Stigmatization of People with Schizophrenia in Pakistan

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#### **Abstract**

The present study was conducted from April till Aug 2015 to evaluate pharmacy students' attitude, social distance and stigmatization of people with schizophrenia. A questionnaire was distributed to final year pharmacy students in different universities of Karachi. Descriptive statistics were used to demonstrate students' demographic information and their response to the questionnaire. Pearson chi-square test was used to evaluate the connection between gender and institution of the students with their response. Around 94% knew that schizophrenia is a chronic mental health condition characterized by a distortion of perceptions and thinking. About 87% opined that schizophrenia is not a contagious disease. More than 77% believed that there are environmental causes of schizophrenia whereas 52.44% thought that it is genetically inherited.

In general receptiveness for the majority of the questions was in affirmative. The findings of the study revealed that pharmacy students show positive attitude towards the patients of schizophrenia. It will help them in future practice to improve communication with mental illness patient and provide effective health care.

**Keywords:** Schizophrenia; Pharmacy students; Attitude; Stigmatization; Pakistan

## Introduction

Mental illness is a major public health problem in developed countries. The disorder has a strong influence on the health and economic resources, such as lost productivity [1]. Inspite of the availability of effective treatment current care provided is far from optimal, including the lack of recognition , diagnosis and treatment providers; the stigma against people with the disease, and the patient lack of knowledge about their disease and medication non adherence [2]. Among mental disorders, schizophrenia (SCZD) is a serious disorder which affects how a person thinks, feels and acts. Someone with SCZD may have difficulty distinguishing between what is real and what is imaginary; may be unresponsive or withdrawn; and may have difficulty expressing normal emotions in social situations. People with SCZD have a life expectancy 20% shorter than the general population and increased susceptibility to various diseases, including diabetes, coronary heart disease, hypertension, and emphysema. A number of explanations for this vulnerability points to the lifestyles of people with severe mental illness, which are often associated with poor eating habits, obesity, high rates of smoking, consumption of alcohol and illegal drugs [3]. SCZD affects approximately 24 million people worldwide with more than 50 % of them do not receive proper care and 90% of them live in developing countries, Pakistan is one of them [4]. SCZD appropriate prevalence in Pakistan is not known, which prevents the production of national strategies to combat this disabling and debilitating disease. Given consideration to the global prevalence and the project "Assessment of Health Status &Trends in Pakistan", the estimated prevalence SCZD in Pakistan can be 1-2% in the general population. SCZD apart from the effects on a person in relation to the immense suffering, also affects the person and family with high levels of social burden and cost [5]. These burdens may involved many factors, including the characteristics of patients and caregivers; family size; economic situation; role expectations; and convictions related diseases. Most people with SCZD in low- and middle-income countries are likely to receive little or no formal care [4].

The belief among health professionals that person suffering from any mental disorder is difficult to talk and unpredictable often contributed to social distance [6]. A great social distance mean that health professionals do not understand the experiences of people with mental illness [7]. Tools that assess social distance have also been used to assess education and clinical placement programs for health professionals [8]. Pharmacists are among the most accessible health professionals who often maintain a relationship of trust with patients; they also have an experience in medication management [9,10]. This position allows pharmacists to perform many important services to the benefit of mental health for which primary care providers often lack time [11]. The possible role of pharmacists in mental health concerns relates to the advocated increase in pharmacists 'scope of practice and to the emergence of an area of care designated as "pharmaceutical care" [12]. There appears to have a considerable need for information regarding mental health care and its medication and continuing, strong support for medication adherence, which general practitioners may have more narrow opportunity than pharmacists to provide [13]. Numerous studies have reported the approach of pharmacists and pharmacy students towards people with mental illnesses [14,15]. However, there is little data published in Pakistan. The plan of the current study was to evaluate pharmacy students' attitude, social distance and stigmatization of people with SCZD.

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#### Materials and Methods

The current study was conducted from April till Aug 2015 by adopting a questionnaire distributed to final year pharmacy students in different universities of Karachi. Overall, three hundred and seven undergraduate students participated in the study. A questionnaire used in other studies [7] was adapted and modified. The questionnaire acquired the demographics of the students, their knowledge, attitude and stigmatization towards SCZD. Each student participating in the study was briefed about the study. After completion the questionnaires were subsequently collected for further analysis. The filled questionnaires were analyzed by using SPSS 20.0. Descriptive statistics were used to demonstrate student demographic information and their response to the questionnaire. Pearson chi-square test was used to evaluate the connection between gender and institution of the students with their response. A value of p<0.05 was considered significant.

#### **Result and Discussion**

Out of 400 survey questionnaires, only 307 were given back (response rate was 76.75%). The study population comprised of 87.9% females. Around 60% of the participants belonged to the public sector whereas 40.5% to private sector universities. Only 17.6% of the students claimed themselves to be very knowledgeable about SCZD. Around 68% considered themselves to be somewhat knowledgeable whereas 6.8% have no knowledge regarding SCZD. On acquiring the reliable sources for health news around 70% considered textbooks to be the most reliable source of information. Figure 1 Internet (48.21%), pharmacist (27.69%) and physician (25.73%) were the subsequently dependable sources.

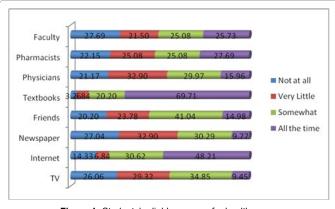


Figure 1: Students' reliable sources for health news.

Table 1 revealed the students' knowledge towards SCZD. Around 94% knew that SCZD is a chronic mental health condition characterized by a distortion of perceptions and thinking. About 87% assumed that SCZD is not a contagious disease. 77.85% believed that there are environmental causes of SCZD whereas 52.44% thought that SCZD is genetically inherited. More than 57% opined that the treatment of SCZD is based on a biopsychosocial model. Mass population (55.05%) thought that people suffering from SCZD need lifelong drug treatment. More than half (53.75%) have visited an institution for people with mental illness. On inquiring about the symptoms of SCZD 85.99% believed that a patient suffers from hallucinations, delusions, disorganized speech, disorganized or catatonic behavior, and negative symptoms (emotional flatness, apathy, lack of speech). Figure 2 SCZD is more common in male living in urban areas. The average age of onset of SCZD is 18 years for men and 25 years for women. Women have increased risk of developing SCZD in their mid-forties [16]. In current study, nearly half of the students opined that the expected age for onset of SCZD is 20-30 years. Most people need ongoing care, but can live independently (38.1%) and most people need ongoing care and need to live in hospitals (22.8%) were the responses of the students when they were asked that can people diagnosed with SCZD lead independent lives.

Table 2 illustrated the attitude of pharmacy students towards the patient with SCZD. More than 80% opined that they would not be embarrassed to tell others if someone in their family was diagnosed with SCZD. Around 71% claimed to have that person as a friend previously hospitalized with SCZD and 69.38% can have that person as a neighbor. 60.26% can work alongside that person previously hospitalized with SCZD. Around 68% stated that if their friend was diagnosed with

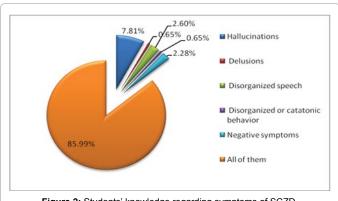


Figure 2: Students' knowledge regarding symptoms of SCZD.

Items in questionnaire	Yes (%)	No (%)	Don't know (%)
SCZD is a chronic mental health condition characterized by a distortion of perceptions and thinking	93.16	3.91	2.28
SCZD may be due to abnormal brain structure	21.82	68.73	9.45
SCZD is a contagious disease*	5.21	86.64	8.14
SCZD is genetically inherited	52.44	35.18	12.38
There are environmental causes of SCZD*	77.85	7.82	14.01
SCZD is a chronic disease that cannot be cured or controlled	19.22	65.15	15.31
SCZD patients have the same symptoms*	19.87	64.17	13.36
People suffering from SCZD need lifelong drug treatment	55.05	29.97	14.66
Do you know someone suffering from SCZD?	22.15	74.59	2.61
Have you ever visited an institution for people with mental illness?	53.75	39.09	5.86
Treatment of SCZD is based on a biopsychosocial model	57.65	8.14	34.20

indicates that the response of the students was statistically significant (p<0.01)

 Table 1: Students' knowledge of SCZD.

Items in questionnaire	Yes (%)	No (%)	Don't know (%)
I would be embarrassed to tell others if someone in my family was diagnosed with SCZD	8.79	81.11	10.10
People diagnosed with SCZD are themselves responsible to cause their condition*	29.32	59.93	10.75
If my friend was diagnosed with SCZD, I would expect that he/she told me.	67.10	19.22	13.36
Can share a flat with that person previously hospitalized with SCZD	29.97	48.21	21.82
Can work alongside that person previously hospitalized with SCZD	60.26	21.82	17.92
Can have that person as a neighbor	69.38	14.01	16.29
Can have that person as a friend	70.68	15.96	13.36
Can introduce to friend as relationship partner	21.82	64.82	13.03
Can recommend that person for a job	41.04	41.69	16.94

<sup>&#</sup>x27;indicates that the response of the students was statistically significant (p<0.01)

Table 2: Students' stigmatization of patient with SCZD.

SCZD, they would expect that he/she told them. Around 60% believed that people diagnosed with SCZD are themselves not responsible to cause their condition. Claire conducted a study on health professional students and revealed that the students reported decreased stigma, improved attitudes toward mental illness and behavior changes in their professional practice [17]. Another study showed that the pharmacy students and graduates held less stigmatizing attitudes in relation to dangerousness and unpredictability [7].

In our study, approximately 80% believed that a person previously hospitalized with SCZD is unpredictable. Have different feelings (76.87%), hard to talk to (50.49%), themselves to blame (40.72%) were the other responses of students regarding the behavior of SCZD patient. About 36% thought that a person previously hospitalized with SCZD is a danger to others. Figure 3 Volmer reported that people with SCZD are difficult to talk to, and people with SCZD have themselves to blame were predictive of high social distance [18]. Mukherjee reported that the pharmacy graduates were less likely to describe people with severe depression as unpredictable than were the pharmacy students, medical students and medical practitioners. He stated that pharmacy graduates indicated that people with schizophrenia were harder to talk to than did the pharmacy students [19].

To ensure effective health care, pharmacists need to develop a vision of life and problems of people with mental illness. Given the significant burden of mental disorders, education on mental health care deserves much more importance. Misconceptions about mental illness can be difficult to change through conventional educational strategies and amplified by the distortion of the media. Education and broader training improves the ability of pharmacists to meet the needs of people with mental illness [20]. Marshall conducted a study on pharmacist attitude towards mental illness and reported that approximately 30-50% of participants expressed being "more" or "much more" confident, comfortable, interested, and likely to perform pharmaceutical care activities for mentally ill patients relative to medically ill patients, while only approximately 5-20% of participants expressed being "less" or "much less" so [15].

### **Conclusions**

The findings of the study revealed that pharmacy students have knowledge of SCZD. They show positive attitude towards the patients of SCZD. It will help them in future practice to improve communication with mental illness patient and provide effective health care.

# Acknowledgement

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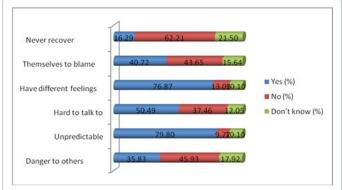


Figure 3: Students' perception regarding a person previously hospitalized with SCZD.

#### Conflict of Interests

The authors declare that there is no conflict of interests regarding the publication of this paper.

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