



Attitudes of Pharmacy Students toward Patients with Mental Illness in Benin City, Nigeria

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ABSTRACT

Introduction: Attitudes such as social distance and stigmatization are commonly experienced by patients with mental illness.

Objectives: To evaluate the attitudes of pharmacy students toward patients with mental illness and providing pharmaceutical care (PC) to them.

Methods: The study was carried out among fourth- (n =88), fifth- (n =80), and sixth- (n =103) year Doctor of Pharmacy students of the Faculty of Pharmacy, University of Benin, Nigeria. Data were collected using a survey instrument which included information on the respondents' demography. The students' social distance, stigmatization, and opinions toward providing PC to mentally ill patients were explored using the questionnaire. The responses were anchored on 5-point Likert-type scale. Data analysis was undertaken using SPSS and GraphPadInstat® to compute mean± S.D., Chi-square test (χ^2), factor analysis, and ANOVA. Higher scores represented favourable responses for social distance and PC attitudes, while lower scores represented favourable responses for stigmatization.

Results: The study achieved a response rate of 79%. Slightly over half (51%) of the respondents were males, and a majority (89%) were aged 20 to 29 years. Among the 4th, 5th, and 6th year students, 19%, 12%, and 95%, respectively, said they had had previous contact with someone with mental illness. The mean values for social distance for the three academic levels, were: 1.85 ±0.94, 1.87 ±0.86, and 2.20 ±0.94; stigmatization: 2.93 ±0.97, 2.84 ±0.94, and 2.72 ±0.99, and PC attitude to mentally ill: 3.57 ±1.15, 3.47 ±1.13, and 3.97 ±1.00, respectively. In all, the 6th year students expressed lower social distance, less stigmatizing opinion, and slightly higher positive attitude towards providing PC to mentally ill patients.

Conclusion: Pharmacy students had positive attitudes toward providing PC for mentally ill patients; however, the students expressed social distance and stigmatizing opinions may limit their efforts. These findings may be relevant to psychiatry pharmacy education in Nigeria.

Key words: Attitudes, social distance, stigmatization, pharmacy students, and mental illness

INTRODUCTION

Pharmacists have the potential to improve pharmacotherapeutic outcomes of patients through patient-centered, outcome oriented practice [1,2,3]. Following the introduction of pharmaceutical care (PC) into pharmacy practice, the community and hospital pharmacists have shown greater commitments towards meeting patients' drug related needs, through identification, prevention and resolution of drug therapy problems [3]. However, the ability of pharmacists to render PC in psychiatry settings may be limited by attitudes such as

stigmatization and social distance [4]. A systematic review of literature on medication related community pharmacy services for mental illness revealed that pharmacists' interventions such as patient counselling, treatment monitoring and medication review contribute to optimizing use of medications for mental illness in the community setting [5]. Also, in a study on the role of pharmacists in community mental health team in Australia, pharmacists were perceived as valuable sources of unbiased and evidence- based drug information for both mental



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health team staff and their clients and caregivers [6]. However, Owusu-Daare *et al* (2010) reported that community and hospital pharmacists in Ghana provide minimal mental health care services for their patients [7].

In Nigeria, there has been slow introduction of pharmaceutical patient care into pharmacy practice. At the moment, most (if not all) schools of pharmacy in the country now devote a substantial part of their undergraduate curricula to clinical pharmacy courses, including pharmacotherapy of mental illnesses. However, the impact of mental health training in schools of pharmacy on students' attitudes toward mental ill patients is unknown in the country. Attitudes such as stigmatization and social distance towards mental illness are cited as barriers to effective patient care [4, 8], and health professionals may also contribute to the stigma experienced by people with a mental illness [4, 9, 10]. A pilot study of primary care workers in Abeokuta, south western Nigeria indicates some negative attitudes toward mental illness [11]. Therefore, the objectives of this study were to evaluate the attitudes of pharmacy students toward patients with mental illness and providing pharmaceutical care (PC) to them.

MATERIALS AND METHODS

Setting and study participants: Study was carried out during 2006/2007 academic session of the university, among the fourth ($n = 88$), fifth ($n = 80$), and sixth ($n = 103$) year Doctor of Pharmacy students of the Faculty of Pharmacy, University of Benin, Benin City, Nigeria. At the time of the study, a total number of 737 undergraduate students were enrolled for academic session at the Faculty. Also at the time of the survey, the fourth-year students had not received any lecture on mental health, but the fifth- and sixth-year students had received lectures on central nervous system pharmacology, pathophysiology and pharmacotherapy of some mental disorders, including schizophrenia and mood disorders. In addition, the sixth-year students had undergone a minimum of 3-week clinical rotation at a psychiatric hospital.

Data collection process: Questionnaire was used for the study, comprising four parts, which evaluated the respondents' socio-demography, social distance, stigmatization, and opinion toward providing pharmaceutical care to mental ill patients. Demographic information investigated included: age, sex, knowledge of someone with mental illness, and previous contact with mentally ill

patients. Social distance, stigmatization, and opinion toward providing pharmaceutical care to mental ill patients were evaluated using: 6-, 7-, and 5- items, respectively. All items were anchored on 5-point Likert-type scale. The social distance scale ranged from "definitely willing" (5) to "definitely unwilling" (1), while those of stigmatization ranged from "strongly agreed" (5) to "strongly disagreed" (1). With regard to attitude toward providing PC to mentally ill patients, the scale ranged from "5" to "1". Higher values for social distance and PC attitude indicate favourable responses, while lower values for stigmatization indicate a favourable response. In all three constructs (social distance, stigmatization, and PC attitude) investigated, "3" was regarded as "neutral" (or undecided) point. The items on social distance were derived from Social Distance Scale (SDS), which has been widely used elsewhere. The reliability and validity of this scale has been previously established [4, 12]. On the other hand, items on stigmatization were derived from previous studies [4, 13], and PC attitude from a previous study by Cates *et al*; 2005 [14]. The items evaluating PC attitude were preceded with a working definition of PC, which was "a practice philosophy in which the pharmacist assumes responsibility for patient drug related needs, and he/she is held accountable for those needs." The questionnaires were self administered and the respondents were approached in their class rooms immediately after receiving a lecture.

Data analysis: Useable responses were entered into Microsoft Excel Spreadsheet, rechecked for accuracy, and analyzed using SPSS (version 11.0) and GraphPadInstat® (version 2.05a). Mean \pm S.D., Chi-square test, and factor loading were computed. Differences between composite and individual item responses were compared using one-way analysis of variance, while the differences between proportions were determined using chi-squared test. P-values less than 0.05 were considered significant. Furthermore, the mean values were transformed into scales that ranged from "6" to "30" with assumed midpoint of "18" for social distance, while those of stigmatization and attitudes toward providing PC ranged from "7" to "35" (midpoint 21), and "5" to "25" (midpoint, 15), respectively.

RESULTS

A total number of 213 students out of 271 approached for interview participated in the study across the three academic levels, giving the following response rates; year 4 (74/88, 84%), year

5 (58/80, 72%), and year 6 (81/103, 79%). Fifty one percent of the respondents were males and majority (89%) were age 20 to 29 years. Sixty seven percent of the respondents knew someone with mental illness, while only 46% had previous contact with a mental ill person (Table 1).

Overall, the Factor loading for items on the questionnaire were greater than 0.4, indicating that the items could be grouped together according to the construct and summarized with a composite mean [15]. The mean values of social distance towards mental ill patients for the fourth, fifth, and sixth year students were 1.85 ± 0.94 , 1.87 ± 0.86 , and 2.20 ± 0.94 , ($p < 0.05$) and the transformed scores were 11.1, 11.2 and 13.2 (midpoint 18), respectively (Table 2). On the other hand, the mean values for stigmatization were 2.93 ± 0.97 , 2.84 ± 0.94 , and 2.72 ± 0.99 ($p > 0.05$), and the transformed scores were 21.8, 21.1, and 19.8 (midpoint 21), respectively (Table 3). With regard to attitudes toward providing pharmaceutical care to mental ill patients, the following mean values were obtained for the fourth, fifth, and sixth year students 3.57 ± 1.15 , 3.47 ± 1.13 , and 3.97 ± 1.00 ($p < 0.05$), and the transformed scores were 17.9, 17.3, 19.3 (midpoint 15), respectively. In all, the sixth year students expressed lower social distance, less stigmatizing opinion, and slightly higher attitude towards providing PC to mental ill patients.

DISCUSSION

Health professionals have identified people with mental illness as among their most challenging patients to manage, and pharmacists are no exceptions. As one of the primary care providers in the field of health in the community, pharmacists have opportunity to ensure safe and effective drug therapy for mentally ill patients [9]. However, results of this study indicate that, in general, pharmacy students demonstrated negative attitudes toward mentally ill persons. This finding is similar to report by Cates *et al*, 2009 in a study conducted among Doctor of Pharmacy students across the academic curriculum in the USA [8]. Also, we observed that the negative attitude expressed by the students decreased numerically from among the fourth year students, who had not received any training on mental health, to the sixth year students, who had received both class room lectures on pathophysiology and pharmacotherapy of some mental disorders and a period of clinical clerkship exposure at a psychiatric hospital. However, despite the negative attitude of students toward mentally ill

persons, the students expressed a favourable attitude toward providing PC to them.

Findings from this study have several important implications for pharmacy education and practice in Nigeria, especially with regard to mental health pharmacy practice. First, it does appear that the reason for this observation could be due to the current pharmacotherapeutic-based training of pharmacy students, as evidence has shown that the attitude of pharmacy students toward mental illness are unaffected by traditional classroom instruction on mental illnesses and psycho-pharmacotherapeutics [4, 8, 16]. If this were to be the case; however, efforts to incorporate students understanding of patients' experiences with their illnesses in order to affect their attitudes would be necessary [4, 16]. Buhler *et al* (2008) demonstrated that first-year pharmacy students who attended peer-level patient presentations had significantly improved social distance score, indicating increased willingness to interact with persons with schizophrenia and clinical depression [17]. The stigma of mental illness is a powerful phenomenon that could be very challenging to overcome [8], if not addressed. For pharmacists, negative attitudes toward mental illness can influence delivery of essential pharmaceutical care services to mentally ill patient [9, 14].

Limitations of this study include the study design which did 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 delineation. In addition, this study makes use of self-reports, which were not validated by other measures. Despite these limitations, though, the study revealed that pharmacy students of the University of Benin, Nigeria, were willing to provide PC to mentally ill patients. However, the students expressed social distance and stigmatizing opinions may limit their efforts. Findings from this study may be relevant to psychiatry pharmacy education in the country, as similar observations may also occur in other schools of pharmacy in Nigeria.

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Table 1.0: Socio-demography of the respondents

Item	4 th year students (%), n=74	5 th year students (%), n=58	6 th year students (%), n=81	Total (%), n=213
Gender				
Male	33 (45)	34 (59)	42 (52)	109 (51)
Female	41 (55)	24 (41)	39 (48)	104 (49)
Age (yrs)				
<20	1 (1)	0 (0)	0 (0)	1
20-24	53 (72)	20 (34)	20 (25)	93 (44)
25-29	16 (22)	28 (48)	52 (64)	96 (45)
≥30	4 (5)	10 (17)	9 (11)	23 (11)
Do you know of anyone with mental illness?				
Yes	43 (58)	38 (65)	62 (77)	143 (67)
No	31 (42)	20 (35)	19 (24)	70 (33)
				*p<0.05
Have you ever had contact with someone with mental illness?				
Yes	14 (19)	7 (12)	77 (95)	98 (46)
No	60 (81)	51 (88)	4 (5)	115 (54) *p<0.05

* χ^2 test. A majority of the students were aged 20 to 29 years, and about equal number of them were males and females

Table 2.0: Social distance towards mental ill patients

For a person with mental illness....	4 th year students (mean± s.d)	5 th year students (mean± s.d)	6 th year students (mean± s.d)	p-value	Factor loading
Share a flat with that person	2.11 (1.04)	2.23 (1.04)	2.36 (1.02)	>0.05	0.598
Have that person as a neighbour	2.48 (1.08)	2.43 (0.97)	2.91 (1.12)	<0.05	0.620
Have that person as a baby sitter for a child	1.27 (0.65)	1.23 (0.47)	1.44 (0.63)	>0.05	0.773
Have one of your children to marry that person	1.37 (0.76)	1.39 (0.59)	1.60 (0.72)	>0.05	0.677
Introduce a friend as a relationship partner	1.64 (0.96)	1.73 (0.99)	1.89 (0.96)	>0.05	0.548
Recommend that person for a job	2.22 (1.12)	2.23 (1.08)	3.00 (1.17)	<0.05	0.524
Average mean	1.85 (0.94)	1.87 (0.86)	2.2 (0.94)	<0.05	

The mean values of the social distance scale increased from the fourth year students to the sixth year students.

Table 3.0: Stigmatization of mental ill patient

Stigmatizing opinion, mental ill persons are...	4 th year students (mean± s.d)	5 th year students (mean± s.d)	6 th year students (mean± s.d)	p-value	Factor loading
Dangers to others	4.01 (0.77)	3.93 (0.92)	3.54 (0.95)	<0.05	0.510
Unpredictable	4.36 (0.71)	4.38 (0.77)	4.02 (0.97)	<0.05	0.670
Hard to talk to	3.46 (1.04)	3.25 (1.12)	2.75 (1.13)	<0.05	0.491
Have themselves to blame	2.25 (0.98)	2.18 (0.81)	2.07 (0.83)	>0.05	0.700
Unable to take care of themselves	1.78 (0.95)	1.73 (0.98)	2.11 (0.92)	<0.05	0.137
Never recover	2.18 (1.07)	2.30 (1.03)	2.09 (0.98)	>0.05	0.763
Cannot be managed with medical treatment	2.47 (1.27)	2.10 (0.99)	2.48 (1.18)	>0.05	0.772
Average mean	3.12 (0.97)	3.02 (0.94)	2.83 (1.01)	>0.05	

Though there was numerical decrease in stigmatizing opinion across the academic level among the students, this decrease is, however, not statistically significant

Table 4.0: Attitude toward providing pharmaceutical care to mentally ill patients

Item	4 th year students (mean± s.d)	5 th year students (mean± s.d)	6 th year students (mean± s.d)	p-value	Factor loading
Interest in providing PC	3.96 (1.07)	3.79 (1.32)	4.36 (0.81)	<0.05	0.646
Likely to provide PC	3.86 (1.51)	3.71 (1.16)	4.25 (0.97)	<0.05	0.668
Comfortable providing PC	3.23 (1.13)	3.25 (1.00)	3.75 (1.08)	<0.05	0.732
Confident providing PC	3.69 (1.18)	3.46 (1.08)	4.01 (1.02)	<0.05	0.730
Comfortable while interviewing mentally ill patients	3.09 (1.24)	3.13 (1.11)	3.48 (1.14)	<0.05	0.654
Average mean	3.57 (1.15)	3.47 (1.13)	3.97 (1.00)	<0.05	

PC = Pharmaceutical care; Overall, pharmacy students were willing to provide PC to mental ill patients

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