



Attitude Toward Psychiatrists and Psychotropic Medication among Persons with Mental Illness and their Primary Caregivers at a Tertiary Care Hospital in North Gujarat

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ABSTRACT

Non-adherence to medication is a common hurdle in effective long-term management of patients with chronic psychiatric disorders. Patients and their care givers' attitude play significant role for adherence. So, it is imperative to examine attitude of patients and their care givers towards psychiatrists and psycho tropic medications. To describe the attitude towards psychiatrist and psycho tropic medication among persons with mental illness (PMI) and their primary care givers. A cross-sectional observational study was done at psychiatry department of a tertiary care hospital among total 228 patients and care givers. The case record form included demographic data, total duration of treatment and two pre validated questionnaires. One was attitude towards psycho tropic medications (ATPM) and another for assessing attitude towards psychiatrist (ATP). The data was analysed using descriptive analysis with Graph Pad Prism statistical analysis software version 10.3.1. The attitude towards psychiatrist and medications did not have association with age, gender, religion and religious belief. Higher education was associated with favorable attitude. Eighty five percent (N=188) subjects believed that psycho tropic medication is very expensive and nearly one fourth subjects (25.2%, N=73 and 29.7%, N=66) respectively believed that drugs cannot prevent relapse and they have unmanageable side effects. Patients did not differ from care giver with respect to attitude towards psychiatrist. There was a positive correlation between ATP and ATPM score (correlation coefficient $r=0.2847$, $P<0.0001$). There is overall positive attitude towards psychiatrists and psycho tropic medication among persons with mental illness and care givers. Apart from attitude towards psychiatrist and medication, there is need to explore other multiple factors related to treatment non adherence. The positive attitude towards Psychiatrist can motivate undergraduate students to choose psychiatry as a speciality of their career option.

INTRODUCTION

It is a well-known fact that stigma is associated to patients with mental illness. Persons who are closely associated to the patient including family members, friends, relatives and mental health professionals also suffers from 'courtesy stigma'. Courtesy stigma is a negative characterization that affects people who are associated with a stigmatized person or group. It is also known as "associative stigma" or "stigma by association"^[1]. Many chronic relapsing remitting psychiatric disorders like anxiety disorders, somatic symptoms and related disorders, mood disorders and schizophrenia require long term adherence to psychotropic medicines. However, non-adherence to medication becomes often challenging factor in long-term care of patients with chronic psychiatric disorders. A systematic review analysed 46 studies and found that approximately 49% of patients with major psychiatric disorders were non-adherent to their psychotropic medications^[2]. Another recent systematic review and meta-analysis of 42 studies reported that the pooled prevalence of MNA was 0.44 (Confidence interval [CI] 0.37-0.52). The pooled prevalence of MNA for psychotic disorders, bipolar disorders and depressive disorders were 0.37 (95% CI, 0.28-0.46), 0.47 (95% CI, 0.23-0.72) and 0.70 (95% CI 0.60-0.78), respectively. Negative attitude toward medications, polypharmacy, greater severity of illness, lack of insight and cost of medications were associated with MNA. Authors concluded that about half of the patients with psychiatric disorders in India are nonadherent to their psychotropic medications^[3]. Treatment non-adherence leads to functional impairment, increases caregiver's burden and overall cost of care. Attitude and beliefs towards psychiatrists and psychotropic medications among patients and their caregivers can play significant role for treatment non-adherence. Perception of people about psychiatrist is one of the important determinants while choosing them as the care-provider for mental healthcare problems. A study from tertiary care centre from north India in 2011 reported that while patients in a tertiary care setting were more likely to seek professional psychiatric help, almost one third of these patients still sought help from faith healers or alternative medicine practitioners at some point during course of their illness^[4]. There are limited studies which have examined how psychiatrists are perceived in society in most developing countries and especially in India, where on average one trained psychiatrist is available for 300,000 people^[5]. A study conducted at Gwalior, India in 2010 found that less than 10 per cent of patients interviewed in a psychiatric hospital first consulted a psychiatrist at the onset of symptoms. For most patients, the first contact was with faith healers^[6]. Another study conducted in rural India in 2009 reported that people in rural India rated family members, neighbours and even general

practitioners as more helpful than psychiatrists when presented with case vignettes describing depression and psychosis. The authors discussed that stigma about consulting a psychiatrist probably played a role, additionally to inaccessibility of mental health care in rural areas^[7]. Previous literature suggests that public attitude about psychiatric treatment methods have been found to be mixed. While some studies revealed that subjects considered psychiatric treatment to be helpful^[8,9]. In others, subjects expressed concern about the quality and efficacy of treatment^[10,11] and in some, respondents considered psychiatric treatment to be harmful^[12,13]. A study from Andhra Pradesh among medical undergraduate students reported that they had negative attitudes toward psychiatrists and mental illness in their initial years, but as they progress in their graduation, this changed. They had positive attitudes toward psychiatric medications in the later years of their graduation^[14]. Another study from Telangana among doctors and medical students reported that non psychiatric doctors and students have negative attitude towards mental illness. Non psychiatrist doctors believed that psychiatrist are not real doctors^[15]. Attitude of primary care givers is important especially among patients with Schizophrenia, Bipolar disorders, and other severe mental illnesses where mental healthcare treatment decisions are made by primary caregivers. In Indian setting, very few studies have examined attitude among persons with mental illness and their primary caregivers. So, present study was undertaken to describe the attitude towards psychiatrist and psychotropic medicines among persons with mental illness (PMI) and their primary caregivers. We also attempted to examine association of attitude and sociodemographic factors.

MATERIALS AND METHODS

A cross-sectional observational study was done from April to September 2019 at psychiatry department of a tertiary care hospital affiliated with a medical college in north Gujarat. The study was approved by Institutional Ethics Committee (IEC) of same institute with reference number 11/2018, MCD/IEC/04/2018 obtained on Date: 28th Feb 2018 as a short term studentship program of Indian Council for medical research (ICMR) for undergraduate student. Written consent statement was taken from each participant as per institutional ethics committee approval along with disclosure that publication of the scientific results / clinical information / image without revealing their identity, name, or initials. The participants were aware that though confidentiality will be maintained. The sample size was calculated by open epi online open-source statistical calculator version 3.01. The population size was kept 1000000 (for finite population correction factor) and hypothesized percentage frequency of positive or negative attitude towards

psychiatrist and psychotropic medicines in the population is taken 50%±10, design effect was kept one. The estimated minimum sample size at 99% confidence level was 166 participants. So, we recruited more than minimum sample size and total 228 participants were recruited using convenient sampling method at psychiatry department of a tertiary care government hospital. Every person with mental illness (PMI) and their caregiver who approached for either outdoor or indoor psychiatry facility was recruited for study on opt out basis. Inclusion criteria for participants were age more than 18 years, history of psychiatric disorder like Depression, Anxiety, Schizophrenia and related psychotic disorders, bipolar mood disorder, substance use disorders, personality disorders, somatic symptom disorders and total duration of illness of at least one year duration and able to provide written informed consent. Minimum one year duration criteria were kept keeping in mind that patient and relatives might get adequate exposure to psychiatrist(s) and psychotropic medications before examining their attitude. Primary caregivers of all these PMI were included if they were more than 18 years of age, living with patient and involved in patient's care for past total duration of minimum one year. Those subjects who had difficulty in expressive communication, intellectual disability, uncooperative, aggressive, or suicidal behaviour were excluded. The study case record form was developed in two parts. First part included demographic data like age, sex, religion, marital status, years of education and occupation. The second part included clinical data of PMI like diagnosis of illness, treatment status or compliance status, type of treatment, total duration of treatment and two questionnaires. One of the questionnaires was self-report attitude towards psychotropic medications (ATPM) devised and used by Grover et al. for similar study population of persons with mental illness and caregivers for same purpose^[16]. Another questionnaire for assessing attitude towards psychiatrist (ATP) which was validated and published by Gaebel^[17]. Both above questionnaires were in English. So, they were translated to local language Gujarati using standardized methodology. Gujarati version of the questionnaires was again reviewed by a group of bilingual experts and was administered to the patients and their care givers to assess the language and wording of the questions. All the suggestions made during this phase were incorporated. The case record form and both questionnaires were administered by investigators through personal interview with participants. ATPM questionnaire has 18 items enquiring attitudes toward psychotropic medication(s). Eight items were positive and 10 items were negative for enquiring attitude. Each ATPM item was rated on three-point Likert scale eliciting positive attitudes

including: 1-“strongly disagree”. 2- “agree to an extent” and 3- “strongly agree”. The pattern of scoring was reversed for the items assessing negative attitudes. This ensured that a higher score always reflected more positive attitudes on each item (1-3) and for the total score of the ATPM (range 18-54)^[16]. ATP questionnaire has eight items enquiring attitudes toward psychiatrists. Three items were positive and five were negative for enquiring attitude. Each ATP item was rated on a three-point Likert scale namely ‘3-agree’, ‘2-cannot say’ and ‘1- disagree’. Negative items were scored in a reverse manner so, higher total score always reflected more positive attitude towards psychiatrist on each item (1-3) and for total score of the ATP (range 8 -24)^[18]. Six participants including three patients and their caregivers did not provide complete information. So, their data was excluded from analysis. The data of remaining 222 participants including 111 PMI and 111 caregivers was used for statistical analysis. The statistical analysis was done with GraphPad Prism 10.3.1 statistical analysis software. Continuous variables were expressed in mean and standard deviation. Categorical variables were expressed in frequency and percentage. Mann-Whitney test and Kruskal Wallis test for non-parametric data were used to examine association of sociodemographic categorical variables like gender, level of education, religion, religious beliefs with attitude (psychiatrist and psychotropic medication) as data did not pass the normality test. Spearman rank non parametric correlation test was used to study correlation between age and attitude (Psychiatrist and psychotropic medication), Dunn multiple comparison post-test was also additionally applied to examine association of level of education and attitude (psychiatrist and psychotropic medication). Fisher's exact test was used to compare attitude between patients and caregiver groups. Spearman rank correlation test was used to examine correlation between attitude towards psychiatrist and attitude towards psychotropic medication.

RESULTS AND DISCUSSIONS

The demographic details of all participants including age, gender, marital status, religion, religious belief status, mean years of education and level of education are shown in (Table 1). The mean years of continuous treatment for psychiatric disorder among patient group were 7.7±8.7. (Table 2) shows the clinical diagnoses of the persons with mental illness (N=111). The results of linear regression between mean score for all the eight items on the questionnaire for attitudes towards psychiatrists (ATP) and demographic variables have been shown in (Table 3). As shown in (Table 3), the attitude towards psychiatrist did not have significant association with age, gender, religion,

Table 1: Demographic Details of the Participants (n=222)

| Variable | Patients (n=111)(%) | Caregivers (n=111)(%) | Total participants(N=222)(%) |
|-------------------------|---------------------|-----------------------|------------------------------|
| Age (Mean±SD)* | 38.9±14.9 | 45.5±14.1 | 42.2±14.8 |
| Gender | | | |
| Male | 72 (64.9) | 87 (78.4) | 159 (71.6) |
| Female | 39 (35.1) | 24 (21.6) | 63 (28.4) |
| Marital Status | | | |
| Married | 78 (70.3) | 103(92.8) | 181(81.5) |
| Unmarried | 26(23.4) | 8(7.2) | 34(15.3) |
| Divorced | 3(2.7) | 0(0) | 3(1.4) |
| Separated | 4(3.6) | 0(0) | 4(1.8) |
| Religion | | | |
| Hindu | 101(90.9) | 101(90.9) | 202(90.9) |
| Muslim | 10(9.1) | 10(9.1) | 20(9.1) |
| Others | 0(0) | 0(0) | 0(0) |
| Religious Belief | | | |
| Strong | 47(42.3) | 56(50.5) | 103(46.4) |
| Medium | 63(56.8) | 54(48.6) | 117(52.7) |
| Not at all | 1(0.9) | 1(0.9) | 2(0.9) |
| Years of Education | 6.2±4.8 | 7.1±4.8 | 6.7±4.7 |
| Level of Education | | | |
| Primary or lower | 70(63.1) | 57(51.4) | 127(57.2) |
| Secondary to highschool | 31(27.9) | 42(37.8) | 73(32.9) |
| Graduation and above | 10(9) | 12(10.8) | 22(9.9) |

*SD= Standard Deviation

Table 2: Details of Diagnosis for Persons with Mental Illness (PMI) (N=111)

| Sr No. | ICD-10 Diagnosis | ParticipantsN=111(%) |
|--------|---|----------------------|
| 1 | Anxiety Disorders (Generalised Anxiety disorder, OCD, Panic disorder and other anxiety disorders) | 40 (36) |
| 2 | Schizophrenia, Schizophreniform disorder, Delusional disorder and other psychotic disorders | 32 (28.9) |
| 3 | Depression and Bipolar affective disorders | 27 (24.3) |
| 4 | Other diagnoses including Somatic symptom disorders, personality disorders, conversion disorders, substance use disorders | 12 (10.8) |

Table 3: Attitude Towards Psychiatrists: Linear Regression (n=222)

| Sociodemographic Variable | Sum of ATP item 1 through 8 divided by 8, mean (SD) | P value |
|-------------------------------------|---|---|
| Age in yrs* [Mean (SD)] Age [range] | 42.2 (14.8) 18-80 | P =0.4094, r = -0.0556 |
| Gender † | | P=0.4672 (>0.05) |
| Male | 2.90(0.17) | |
| Female | 2.86(0.24) | |
| Level of Education ‡ | | P=0.0167 ‡ |
| Primary or lower | 2.87(0.21) | Post-test § – primary Vs secondary considered significant |
| Secondary to high school | 2.93(0.15) | |
| Graduation and above | 2.86(0.21) | |
| Religious belief ‡ | | P=0.8349 |
| Strong | 2.87(0.22) | |
| Medium | 2.90(0.16) | |
| Not at all | 2.94(0.09) | |
| Religion † | | P =0.3662 |
| Hindu | 2.88(0.19) | |
| Muslim | 2.92(0.16) | |
| Other | - | |

* Spearman non parametric correlation coefficient and two-tailed P value;

† Mann-Whitney test; ‡ Kruskal Wallis Test (Non parametric ANOVA); § Dunn’s multiple comparisons tests; SD =Standard deviation; P<0.05 was considered statistically significant.

Table 4: Attitude Towards Psychotropic Medication (ATPM): Linear Regression (n=222)

| Socio demographic variable | Sum of ATPM items 1 through 18 divided by 18, mean (SD) | P value |
|----------------------------|---|--|
| Age in yrs* [Mean(SD)] | 42.2 (14.8) | P=0.6725, r = 0.0285 |
| Age range | 18-80 | |
| Gender † | | P=0.0904` |
| Male | 2.60(0.21) | |
| Female | 2.54(0.23) | |
| Level of Education ‡ | | P=0.0066 |
| Primary or lower | 2.57(0.23) | Post-test – Secondary Vs Graduation is considere significant |
| Secondary to high school | 2.65(0.17) | |
| Graduation and above | 2.49(0.21) | |
| Religious belief ‡ | | P = 0.0515 |
| Strong | 2.55(0.24) | |
| Medium | 2.62(0.20) | |
| Not at all | 2.42(0.20) | |
| Religion † | | P = 0.3606 |
| Hindu | 2.59(0.22) | |
| Muslim | 2.53(0.24) | |
| Other | - | |

*Spearman non parametric correlation coefficient; † Mann-Whitney test, ‡ Kruskal Wallis test with Dunn multiple comparison post-test. SD= Standard Deviation, P<0.05 was considered statistically significant

Table 5: Attitude Towards Psychiatrist: Individual items (n=222)

| Item * | Response category | Patient (N=111)(%) | Caregiver (N=111)(%) | Total Subject(N=222)(%) | P value |
|--|-------------------|--------------------|----------------------|-------------------------|------------|
| Psychiatrists are real medical doctors | Agree | 106(95.5) | 107(96.4) | 213(95.9) | P = 0.5475 |
| | Cannot say | 3(2.7) | 1(0.9) | 4(1.8) | |
| | Disagree | 2(1.8) | 3(2.7) | 5(2.3) | |
| If a doctor is not good enough for the other medical professions, he/ she can still become a psychiatrist. | Agree | 1(0.9) | 1(0.9) | 2(0.9) | P = 0.3365 |
| | Cannot say | 12(10.8) | 6(5.4) | 18(8.1) | |
| | Disagree | 98(88.3) | 104(93.7) | 202(91) | |
| Psychiatrists have effective treatment methods to help mentally ill patients. | Agree | 107(96.4) | 108(97.3) | 215(96.8) | P = 0.8445 |
| | Cannot say | 2(1.8) | 1(0.9) | 3(1.4) | |
| | Disagree | 2(1.8) | 2(1.8) | 4(1.8) | |
| Most psychiatrists choose their profession because they have personal problems of their own. | Agree | 2(1.8) | 1(0.9) | 3(1.4) | P = 0.7488 |
| | Cannot say | 11(9.9) | 9(8.1) | 20(9) | |
| | Disagree | 98(88.3) | 101(91) | 199(89.6) | |
| Psychiatrists have too much power over mentally ill patients. | Agree | 18(16.2) | 16(14.4) | 34(15.3) | P = 0.7949 |
| | Cannot say | 9(8.1) | 7(6.3) | 16(7.2) | |
| | Disagree | 84(75.7) | 88(79.3) | 172(77.5) | |
| Psychiatrists are seriously interested in the well-being of mentally ill patients. | Agree | 109(98.2) | 110(99.1) | 219(98.6) | P = 0.5610 |
| | Cannot say | 2(1.8) | 1(0.9) | 3(1.4) | |
| | Disagree | 0(0) | 0(0) | 0(0) | |
| Psychiatrists prescribe psychiatric medications only to calm down their patients. | Agree | 4(3.6) | 6(5.4) | 10(4.5) | P = 0.2137 |
| | Cannot say | 5(4.5) | 1(0.9) | 6(2.7) | |
| | Disagree | 102(91.9) | 104(93.7) | 206(92.8) | |
| Most psychiatrists have mental problems themselves. | Agree | 0(0) | 0(0) | 0(0) | P = 0.8007 |
| | Cannot say | 9(8.1) | 8(7.2) | 17(7.7) | |
| | Disagree | 102(91.9) | 103(92.8) | 205(92.3) | |

* Fisher's exact test is applied for all items. P<0.05 was considered statistically significant.

Table 6: Frequency of Responses for Individual Items Related to Attitudes Toward Psychotropic Medication (N=222)

| Item * | Response Category | Patient (N=111) (%) | Caregiver (N=111) (%) | Total subject (N=222) (%) | P value |
|---|--------------------|---------------------|-----------------------|---------------------------|------------|
| Psychotropic medications are the most effective way to treat mental illness. | Strongly Disagree | 1(0.9) | 0(0) | 1(0.5) | P = 0.6051 |
| | Agree to an extent | 5(4.5) | 5(4.5) | 10(4.5) | |
| | Strongly Agree | 105(94.6) | 106(95.5) | 211(95) | |
| Their benefits outweigh their risk. | Strongly Disagree | 4(3.6) | 0(0) | 4(1.8) | P = 0.1245 |
| | Agree to an extent | 15(13.5) | 14(12.6) | 29(13.1) | |
| | Strongly Agree | 92(82.9) | 97(87.4) | 189(85.1) | |
| They don't cure, but can lead to substantial improvement. | Strongly Disagree | 15(13.5) | 18(16.2) | 33(14.9) | P = 0.3298 |
| | Agree to an extent | 9(8.1) | 4(3.6) | 13(5.8) | |
| | Strongly Agree | 87(78.4) | 89(80.2) | 176(79.3) | |
| They have side effects, but these can be managed. | Strongly Disagree | 33(29.7) | 33(29.7) | 66(29.7) | P = 0.5026 |
| | Agree to an extent | 31(27.9) | 24(21.6) | 55(24.8) | |
| | Strongly Agree | 47(42.4) | 54(48.7) | 101(45.5) | |
| Use of psychotropic along with counselling helps a lot of people with mental illness. | Strongly Disagree | 12(10.8) | 7(6.3) | 19(8.5) | P = 0.2085 |
| | Agree to an extent | 1(0.9) | 4(3.6) | 5(2.3) | |
| | Strongly Agree | 98(88.3) | 100(90.1) | 198(89.2) | |
| Psychotropic can prevent relapse. | Strongly Disagree | 32(28.8) | 24(21.6) | 56(25.2) | P = 0.4641 |
| | Agree to an extent | 34(30.6) | 38(34.2) | 72(32.4) | |
| | Strongly Agree | 45(40.6) | 49(44.2) | 94(42.4) | |
| They rarely can cause permanent damage or harm. | Strongly Disagree | 10(9) | 12(10.8) | 22(9.9) | P = 0.7130 |
| | Agree to an extent | 19(17.1) | 15(13.5) | 34(15.3) | |
| | Strongly Agree | 82(73.9) | 84(75.7) | 166(74.8) | |
| They are better option for treatment of mental illnesses than alternative treatments. | Strongly Disagree | 10(9) | 9(8.1) | 19(8.5) | P = 0.9357 |
| | Agree to an extent | 9(8.1) | 8(7.2) | 17(7.7) | |
| | Strongly Agree | 92(82.9) | 94(84.7) | 186(83.8) | |
| They have high risk of dependency. | Strongly Disagree | 90(81.1) | 95(85.6) | 185(83.3) | P = 0.3380 |
| | Agree to an extent | 6(5.4) | 2(1.8) | 8(3.6) | |
| | Strongly Agree | 15(13.5) | 14(12.6) | 29(13.1) | |
| They are unnatural and poisonous substances, which are harmful. | Strongly Disagree | 100(90.1) | 100(90.1) | 200(90.1) | P = 0.4291 |
| | Agree to an extent | 6(5.4) | 3(2.7) | 9(4.1) | |
| | Strongly Agree | 5(4.5) | 8(7.2) | 13(5.8) | |
| They are just sedatives, which only calm down the patient (to make them sleepy). | Strongly Disagree | 98(88.3) | 107(96.4) | 205(92.3) | P = 0.0091 |
| | Agree to an extent | 9(8.1) | 0(0) | 9(4.1) | |
| | Strongly Agree | 4(3.6) | 4(3.6) | 8(3.6) | |
| In long run, they worsen the illness. | Strongly Disagree | 83(74.8) | 97(87.4) | 180(81) | P = 0.0396 |
| | Agree to an extent | 18(16.2) | 7(6.3) | 25(11.3) | |
| | Strongly Agree | 10(9) | 7(6.3) | 17(7.7) | |
| They can make the body unnaturally hot or cold. | Strongly Disagree | 76(68.5) | 86(77.5) | 162(73.0) | P = 0.1913 |
| | Agree to an extent | 4(3.6) | 1(0.9) | 5(2.2) | |
| | Strongly Agree | 31(27.9) | 24(21.6) | 55(24.8) | |
| They are very expensive. | Strongly Disagree | 9(8.1) | 3(2.7) | 12(5.4) | P = 0.1454 |
| | Agree to an extent | 12(10.8) | 9(8.1) | 21(9.5) | |
| | Strongly Agree | 90(81.1) | 99(89.2) | 189(85.1) | |
| They are not necessary for treatment of mental illness, because mental | Strongly Disagree | 103(92.8) | 101(91) | 204(91.9) | P = 0.7095 |
| | Agree to an extent | 2(1.8) | 4(3.6) | 6(2.7) | |

| | | | | | |
|---|--------------------|----------|----------|-----------|------------|
| illnesses can be controlled by other means too. | Strongly Agree | 6(5.4) | 6(5.4) | 12(5.4) | |
| They make the subjects weak and enervated. | Strongly Disagree | 86(77.5) | 92(82.9) | 178(80.2) | P = 0.3145 |
| | Agree to an extent | 6(5.4) | 2(1.8) | 8(3.6) | |
| | Strongly Agree | 19(17.1) | 17(15.3) | 36(16.2) | |
| They are the sole cause of unproductive life of that people with mental illnesses lead. | Strongly Disagree | 67(60.4) | 74(66.7) | 141(63.5) | P = 0.4652 |
| | Agree to an extent | 32(28.8) | 24(21.6) | 56(25.2) | |
| | Strongly Agree | 12(10.8) | 13(11.7) | 25(11.3) | |
| It is always better to take less than the prescribed dose of these medicines. | Strongly Disagree | 88(79.3) | 101(9) | 189(85.1) | P = 0.0442 |
| | Agree to an extent | 3(2.7) | 2(1.8) | 5(2.3) | |
| | Strongly Agree | 20(18) | 8(7.2) | 28(12.6) | |

* Fisher's exact test is applied for all items. P<0.05 was considered statistically significant.

Table 7: Spearman Correlation Between Attitude Towards Psychiatrist (ATP) and Attitude Towards Psychotropic Medication (ATPM), N=222

| Variable | | ATPM score |
|-----------|---------------------------------------|---------------|
| ATP score | Spearman rank correlation coefficient | r= 0.2847 |
| | 95% confidence interval | 0.1551-0.4046 |
| | Two tailed significance | P <0.0001 |

and religious belief. Those participants with secondary education were found to have more favourable attitude towards psychiatrist as compared to primary or less education. For attitude towards psychiatrist, the mean ATP score of patients was 23.01±1.53 (range 16-24) and mean ATP score of caregivers was 23.17± 1.53(range 15-24), out of the maximum obtainable score of 24. This suggests overall positive attitude towards psychiatrist among both patients and care givers. The results of another linear regression between mean score for all eighteen items of the attitude towards psychotropic medication (ATPM) questionnaire and demographic variables have been shown in (Table 4). As shown in (Table 4), the attitude towards psychotropic medication did not have association with age, gender, religion and religious belief. Those subjects with secondary education were found to have more favourable attitude towards psychotropic medication as compared to primary or less education. (Table 5) shows frequency of responses for individual items of attitudes toward psychiatrists and presents the comparison between PMI and care givers with respect to each item. Attitude towards psychiatrist did not significantly differ between PMI and their care givers for. Both groups shared positive attitude towards psychiatrist. For attitude towards psychotropic medication, the mean total score of PMI was 46.06±3.93 (range 36-52) and that of care givers was 47.03±3.88 (range 33-53) out of the maximum obtainable score 54. This suggests overall positive attitude towards psychotropic medications among PMI and care givers. A mean score for all the eighteen items on the questionnaire for attitudes towards psychotropic medications was calculated for each subject. The mean score of all subjects including PMI and care givers was 2.58±0.21. (Table 6) shows frequency of responses for individual items related to attitudes toward psychotropic medication and presents the comparison between PMI and care givers with respect to each item of scale. Attitude towards psychotropic medication did not significantly differ between PMI and their care givers except for three

items. These three items were 'they are sedative pills only', 'In long run, they worsen the illness' and 'It is always better to take less than the prescribed dose of these medicines. ATP scale score of every participant was correlated with their ATPM scale score by Spearman correlation statistics. There was a positive correlation between ATP and ATPM score (correlation coefficient r=0.2847, P<0.0001) as shown in (table 7). The study shows overall positive attitude towards psychiatrist and psychotropic medication among sample of PMI and care givers at a tertiary care hospital. The attitude towards psychiatrist among participants had no association with age, gender, religion and religious belief. Similar findings were reported in a study conducted in five metro cities in India^[18]. Previous studies have shown that compared to the general population, psychiatric patients and their relatives have been found to have slightly more positive attitudes toward psychotropic medications^[19,20]. Those participants with secondary education were found to have more favorable attitude towards psychiatrist as compared to primary or lesser education^[18]. A recently published review article reported that cultural background plays significant role in influencing attitude towards medication^[21]. The highest positively rated item in ATP was "psychiatrists are seriously interested in the well-being of mentally ill patients". The highest negatively rated item in ATP was "psychiatrists have too much power over mentally ill patients". The subjects believe that the psychiatrist is often dominant over patients and use treatments against their willingness. They believe that doctor's therapy will be painful and that medications may be administered without their consent are often reported by patients^[22]. We did not find significant difference between PMI and caregivers with respect to attitude towards psychiatrist. The mean score of each item in ATP and ATPM was largely similar in both PMI and caregivers' group. A study from India among 200 patients and care givers in 2014 also reported similar finding^[16]. The highest positively rated item in ATPM scale was "Psychotropic medications are the most

effective way to treat mental illness". A meta-analysis has shown that non pharmacological treatment methods like psychotherapy is the favourite treatment method among the public but psychiatrists offer pharmacotherapy to majority of patients which is less appreciated^[23]. In contrast to this, our study participants trusted medicines as the most effective way for cure of mental health problems. The highest negatively rated item in ATPM scale was "they are very expensive". In the study, 85.1% participants believed that medicines are very expensive. This reflects that majority of subjects had difficulty in affording the cost of medicines. In government hospital, majority of patients from lower middle and poor socio-economical group approach to avail free of cost treatment including medication. So, this finding can be due to government hospital sample of participants. Persons having chronic mental illnesses like schizophrenia, bipolar disorder and anxiety disorders need to take medicines for years or even lifelong. So, affordable medicines become important determinant for adherence to treatment. When treatment is non affordable, patients often skip dose, delay follow up visits and take less than prescribed dose of medicines. These are common clinical observations at our hospital in psychiatry outpatients. The stakeholders should take important steps to ensure constant supply of free of cost all essential medicines used for treatment of psychiatric illnesses, which remains a challenge in many peripheral public sector hospitals especially in developing countries like India. Attitude towards psychotropic medication (ATPM), did not differ between PMI and caregiver in all the items except 3 items. These items were "they are sedative pills only", "In long run, they worsen the illness" and "It is always better to take less than the prescribed dose of these medicines." As compared to care givers, PMI believed more that "psychotropic medications are sedative pills only". The PMI also believed more than care givers that "it is always better to take less than the prescribed dose of these medicines". This can be explained because the PMI take the medicines and they are likely to experience the sedative and other side effects of medication. This finding provides insights for clinical interventions. Starting with low dose and slow up titration, regular monitoring of sedation during each visit, giving sedative drugs at bedtime and use of non-sedative drugs whenever possible can be helpful. Psycho education of PMI and care giver at the time of starting medication about possible sedation with drug, development of tolerance, reporting to doctor about sedation before discontinuing medicines themselves is necessary. PMI believed more than caregivers that "in long run the psychotropic medication worsen the illness". One fourth (25.2%) participants believed that "psychotropic

cannot prevent relapse". One third (29.7%) participants believed that "psychotropic medications have side effects and that cannot be managed". The review article from India reported that many patients express concerns about the cognitive side effects medications (e.g. impaired attention concentration, memory and executive functioning) which can affect their adherence to treatment regimens^[24]. These are novel findings in the study. It gives insight that we should regularly do brief psycho education of PMI and care givers about drugs and possible common adverse effects. Its pertinent to explain that psychotropic drugs have similar adverse effects just like other speciality medications and can be managed. Study reports positive correlation between attitude towards psychiatrist and attitude towards psychotropic medicines. That means favorable attitude towards therapist is associated with favorable attitude towards medicines too.

Strength and Limitations: There are very few studies exploring and comparing PMI and care givers' attitude towards psychiatrists and psychotropic medication. Our study has explored this area. The study had certain limitations. The overall positive attitude among participants might be due to hospital-based sample. The study sample size is relatively small so the findings should be confirmed by more studies in multiple cities and in rural areas to draw a general conclusion on the spectrum of attitudes towards psychiatrists in India.

CONCLUSION

There is overall positive attitude towards psychiatrists and psychotropic medication among Persons with mental illness as well as care givers except few items. The positive attitude towards Psychiatrist can motivate undergraduate students to choose psychiatry as a speciality of their career option. The future research should explore other possible factors affecting noncompliance including distance travel from psychiatry treatment facility and cultural beliefs related to mental illness and treatment.

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