

## Research Article

# Patient's Satisfaction and Associated Factors towards Outreach Mental Health Services at Health Centers Addis Ababa, Ethiopia 2017

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Received: January 31, 2019; Accepted: March 06, 2019; Published: March 13, 2019

## Abstract

**Background:** Patient satisfaction is the psychological state that results from confirmation, disconfirmation, or expectations with reality. There is lack of data about Patient satisfaction level and associated factors in the study setting.

**Objectives:** The aim of this study was to assess patient satisfaction and associated factors to wards outreach mental health services at health centers Addis Ababa.

**Methods:** Institution based cross-sectional quantitative study was used. Validated and standardized questionnaire and tools were used to collect the data. Systematic random sampling was used following face-to-face interview approach. Epi data and SPSS version 20 statistical software were used for data entry and analysis respectively. Binary logistic regressions were fitted to identify factors associated with outcome variable.

**Result:** The overall prevalence of satisfaction was found to be 57%. Being female (AOR=2.41 95% CI: (1.24-4.65), being rural residence (AOR=4.15 95% CI: (1.84- 9.35), distance greater than 5 km (AOR=3.21 95% CI: (2.0-7.52) and poor wealth index (AOR=2.5 95% CI: (1.25- 8.25) were associated with dissatisfied.

**Conclusion and Recommendation:** The overall prevalence of satisfaction is lower than other findings. It better to consider better service provision to increase satisfaction level and address the contributing factors of dissatisfaction during intervention plan.

**Keywords:** Satisfaction; Patient; Dissatisfaction; Amanuel mental specialized hospital; Mental health

## Background

### Statement of the problem

Patient's satisfaction can be defined as the extent of an individual experience compared with his or her expectations. It is the psychological state that results from confirmation or disconfirmation of expectations with reality [1]. It patients satisfaction as 'a health care recipient's reaction to salient aspects of the contexts, process and result of service experience [1]. Client satisfaction with treatment processes may influence, and be influenced by treatment outcomes. Clients who are not satisfied with a service may have worse out comes than others because they miss more appointments, leave against advice or fail to follow treatment plans [2]. Patient satisfaction should be indispensable to assessment of quality as to design and measurement of health care systems [3].

Patient's satisfaction, in particular, is subdivided in to orientation toward care and conditions of care, in which the orientation towards care represents the patients response from the use of health centers in view of their hope and expectation, and the conditions of care represent specific conditions including the method of treatment, the location of the health care institution, the waiting time, the payment

and the treatment results [4].

Consequently, dissatisfied patient may not considered psychologically or socially well and thus the goal of clinician has not been attained, patient's satisfaction can be affected by many factors, among them, difficulty to locate different section easily, long waiting time preceding consultation of physician, shortage of waiting facilities, consultation time, health providers behavior's like politeness, showing respect to the patient, flexible payment option, easily accessibility and availability of care provider, medical outcome are among the main one [2].

Despite these realities, the health care provider in developing countries seems to be ignoring the importance of patient satisfaction regarding health services [5]. Medical and psychiatric outcome indicates whether the patient consider the service to be adequate and appropriate, whether as emotional reaction related to such things as responsiveness, respect and politeness of the care provider [6]. It is important for clinician to let patients to express their view of care and incorporate these views into provided care [2]. Thus scarcity of literature made it difficult to find research examining patient satisfaction with clinician services in developing countries.

In other words, even though patient satisfaction is a measure of quality, no clear interpretation of satisfaction measures and associated factors [6]. Patients are the best source of information about health centers system, communication, educating and management process. They are the source of information about whether they were treated with dignity and respect. Their experiences often reveal how a health center is operating and can stimulate important insight to kind of changes that are needed to close chasm between the care provided and the care should be provided [7]. Patient satisfaction evaluations are excellent opportunity to involve patients in the process of evaluating the given services and program [2].

Patients should be allowed to define their own priority and evaluating their care accordingly, rather than having those criteria selected by professionals. Satisfaction studies give some idea for provider of care how they would have to modify their provision of services in order to make their patients more satisfied [5]. Unlike clinical process measures. It reflects the patients' personal response to an evaluation of care. Patient satisfaction is the only available measure of personal impact of the full spectrum of the care process [8].

Studies of quality of medical care importance are increasing in importance as a component of health research. Consumer opinion of services is being taken in to account in assessment of quality. Thus evaluating quality of medical care involves the measurement of its benefits to patients and community at large [5]. Study conducted in Birmingham, UK, showed that waiting time was significant among studied variables affecting patient satisfaction with the ward round. Age, number of people present and length of ward round did not appear to be significant factors in affecting patient satisfaction were not significant [9].

Stepwise regression showed that 32% of the variability of the total score can be explained by the waiting time, the diagnosis and whether or not the patient had met their consultant before their first ward round. A higher total score is therefore associated with shorter waiting times, psychotic rather than neurotic diagnoses, and meeting the consultant before the first ward round [9].

Study conducted in Italy reveals that, the satisfaction with services expressed by outpatients and their relatives was good, with the exception of poor satisfaction with information about treatment and involvement in the treatment program. The satisfaction of inpatients and their relatives was significantly lower, with the issue of information giving by staff appearing particularly critical. Among patients, variables associated with dissatisfaction were being an inpatient, having a diagnosis of psychosis, being in contact with services for more than 6 years, and being single. Among relatives, being female and being the relative of an inpatient were associated with dissatisfaction. For both patients and relatives, receiving inpatient care was the strongest predictor of dissatisfaction [10] Comparative cross-national study conducted in five European countries among 404 schizophrenia patients using European version of the Verona Service Satisfaction Scale (VSSS-EU) showed satisfaction with psychiatric service ranges from 39.3% in London to 80.4% in Copenhagen. Lower levels of total service satisfaction were associated with being retired/unemployed, having more severe psychopathology, having more unmet needs and living alone [7].

While another study done in Northern London (n=59) using patient Satisfaction Questionnaire 18(PSQ-18) reported only 12% patients felt that they had been given enough information. 51% of patients (30 of 59) felt that they received help quickly enough at the onset of the illness. Patients born abroad were significantly more satisfied than those born in Britain, irrespective of ethnicity [11].

A qualitative study done in England showed fear of violence, communication with staff, lack of autonomy, participants' conceptions and expectations were factors that affect patient satisfaction [12].

Study done on patient satisfaction from Zurich, Switzerland using Larsen's Client Satisfaction Questionnaire (CSQ-8) among 161 participants indicated that patients with Somatoform, eating, and personality disorders were less satisfied than patients with affective, anxiety, and adjustment disorders. Patients treated with a combination of psychotherapy and pharmacotherapy was numerically but not statistically more satisfied than patients treated with psychotherapy alone. Symptom reduction and changes in the interpersonal domain were important outcomes associated with patient satisfaction [13].

A cross-sectional study done in Geneva, Switzerland among twelve public outpatient psychiatric clinics (n=707) using CSQ-8 reported global satisfaction rate was 93.1%. Female gender, not single, financial resources (not receiving a disability pension or other social aid), not presenting a psychotic disorder, and attending a specialized program were variables having significant association with high satisfaction [14].

A triangulation study from Europe measuring satisfaction of patients with an emergency psychiatric service (n=55) using client Satisfaction Questionnaire 8 (CSQ-8) revealed that 35% had low level of satisfaction, 29% a medium level and 36% high level of satisfaction. Respondents expressed dissatisfaction with waiting times for assessment, communication by staff, and inadequate provision of information regarding service [15]. In a retrospective study done in America and Canada universities indicated 44.8% of anxiety disorder patients (n=1004) were very satisfied with their mental health care. Significant predictor of satisfaction was type of quality of psychotherapy while higher education and greater anxiety severity were significantly associated with lower likelihood of being satisfied [8].

A cross-sectional study in German among 40 Obsessive Compulsive Disorder (OCD) patients with VSSS-54 item questionnaire indicated that a significant association has been found between the age of onset and satisfaction, with more dissatisfaction in the dimensions of professional skills and behavior, married OCD patients were significantly more satisfied with the type of intervention they got [16].

A cross-sectional survey conducted in university hospital, Ireland among 162 respondents using CSQ-8 reported overall satisfaction of patients' to the psychiatric service they received was 90%. Less than 38% of respondents report that the outpatient service had met their needs [10].

A 36-month follow-up study among 469 eating disorder patients' from Sweden using Treatment Satisfaction Scale (TSS), showed that 77% overall satisfaction with 38% highly satisfied. Factors found to

be significantly associated were patient experiences of treatment interventions, levels of eating disorder psychopathology and psychiatric symptoms, and negative interpersonal profiles [17]. A cross-sectional study from the same country among 2552 patients using Consumer Satisfaction Rating Scale-self-rating version (Cons at-P) indicated with increasing social function, the better were patients' Satisfaction (35).

Another qualitative study done in Lund university hospital outpatient and inpatient psychiatric setting, Sweden reported establishment and quality of helping relationship that makes patients felt understood by the staff constitute good psychiatric care (36). A cross-sectional study conducted in India (n=60) using PSQ-18 reported 50 (57%) of patient satisfied with the psychiatric service received. Greatest level of satisfaction was noted in interpersonal aspects (71.4%) and time spent with doctors (62.4%). Patients with depression had the highest score of satisfaction followed by those with anxiety disorder, bipolar, and the least was with schizophrenia patients. Age, employment and education were socio demographic variables significantly associated with satisfaction. Satisfaction is significantly more in female patients, and that of communication was more in males. Older group (age 35-60 years) had significantly higher satisfaction scores in technical quality of the professionals, interpersonal manner, and time of waiting with doctors, whereas significantly lower score in financial aspects than younger.

A cross-sectional study conducted in Pakistan (n=240) showed 90.7% of patients' treated for mental health problem satisfied with the service they receive. Significant factor that had association with satisfaction was age where younger participants were more satisfied than elders (37).

Another study from Doha, Qatar (n=1054) reported overall satisfaction of 49 %. The satisfaction level was significantly higher in educated Qatari (185; 49%) and Arab expatriate (333; 69.3%) patients (38).

A study conducted in Jimma Hospital shows that the overall patient satisfaction is 57.1% [10] and the percentage of users satisfied with health care services increased progressively with increased in age of an interviewee, but decreased with increased educational status of interviewee. Satisfaction decreased with increased in length of waiting time. There was also significant association between satisfaction and perceived length of time spent with health care provider for physical examination and consultation, with longer time spent associated with higher satisfaction level [10]. The study conducted in west showa, central Ethiopia, showed that interpersonal processes including perceived empathy, perceived technical competency, non-verbal communication and patient enablement significantly influence patient satisfaction [18].

This study also showed that the mean consultation duration for the patients was 6.26 minutes whereas the mean expected consultation duration was 14.02±6.73 minutes. It reveals about 81.3% of the consultations lasted for less than the mean expected consultation duration [18]. According to study conducted in Jimma Hospital the most frequently encountered problems affecting utilization on the day of visit were due to failure to collect prescribed medications, from

hospital pharmacy (36.3%), long waiting time preceding consultation (20.4%), and failure to locate different units easily (15.5%) [18].

In a survey undertaken in private clinics in Addis Ababa, high rates of satisfaction (64-99%) were found in all aspects of medical care except affordability of service charges [12].

### Justification

Mental health is one of the most disadvantaged health programs in Ethiopia, both in terms of facilities and trained workers. Few institutions provide psychiatric services by specialist doctors and other psychiatric professionals in the country [19]. The modern approach to health care seeks to engage attention of both patients and public in developing health care services and equity of access [20].

Satisfied patients are more likely to comply with medical treatment and ought to have a better outcome compare to psychiatric treatment. Therefore, assessing patients' satisfaction helps to improve medical and psychiatric treatment outcome [20]. Assessment of patients satisfaction at out patient psychiatry department in the health centers or investigating some variables that had not been previously researched, as well as the mentioned variables has great importance to improve and change service delivered for patient Focusing on identifying factors that affects patient satisfaction with mental health services could be important to improve the service delivering experience.

Mental health service is given in the twenty health centers, which are found in the ten-sub city at Addis Ababa. In collaboration with Amanuel mental specialized hospital, Ethiopian federal ministry of health and Addis Ababa health beareu.

Effort was made to improve mental health service and integrate over all medical and psychiatric health services. The above-mentioned health centers are providing mental health service. In addition to medical service and patients were referred from hospital to their nearby health facility to seek mental health service. That is why I have research interest to patients satisfaction towards mental health service's at health centers Addis Ababa.

In addition there was no similar research done in Ethiopia. It helps to improve treatment-seeking behavior of people. It serves as a source of data/information for who work in the area of mental health service and those who will conduct further studies on the issue under scrutiny. It will enrich the existing literature in the field of mental health. Knowing about patients it satisfaction helps to identify mental service gaps in the health centers and to improve and solve mental health service gaps.

### Objectives

**General objectives:** To asses patients dissatisfaction and associated factors towards outreach mental health service's at health centers Ababa, Ethiopia 2017.

**Specific objectives:** To determine magnitude patients dissatisfaction with mental health services at health centers Addis Ababa.

To identify factors associated with patient dissatisfaction about mental health services at health centers Addis Ababa.

## Methods

### Study design and period

Institutional based cross sectional study was used employed from October 10-November 10/2017 G.C.

### Study area

Addis Ababa is the capital city of Ethiopia In 2003, the charter of Addis Ababa city government, proclamation No.1/1995 E.C, divided the city in to ten sub cities.

Among health centers available in each sub city, we used 20 health centers from 10 sub cities [21]. Participants of this study were selected from ten sub city 20 health centers, which render outpatient mental health services through systematic random sampling technique.

### Source population

Patients who were visited the OPD for the need of mental health services in selected health centers at Addis Ababa, Ethiopia 2017.

### Study population

Patients who delivered mental health service at outpatient during data collection period.

### Sample size determination

The sample size was calculated using single population proportion formula by assuming the following assumptions. Where n is sample size, z is level of confidence =1.96 in normal distribution and p is proportion from previous studies. As the proportion is not known, this study used p=50%, q=1-p, (1-0.5)=0.5 and margin of error which is d=0.05.

$$\text{Therefore, } n = z^2 \frac{p q}{d^2} \\ n = (1.96)^2 (0.5)^2 \frac{(0.5)^2}{(0.05)^2} = 384,$$

The source population (N) is 1200. Since N is less than 10000, we used the correction formula that is  $n_f = n / (1 + n/N) = 384 / (1 + 384/1200) = 290$ .

### Sampling technique and procedure

In this study Systematic random sampling was used. After the sample size is proportionally allocated to each included health centers, the kth interval was calculated. Based on the interval the interview was conducted using systematic sampling.

### Inclusion criteria

Participants their age >18 and who came for follow up and treatment to those health centers which offer outreach mental health services at Addis Ababa.

### Exclusion criteria

**Study variable:** Patients were excluded if they are seriously ill.

**Dependent variable:** Patient satisfaction (dissatisfied vs satisfied).

**Independent variable:** Socio a demographic variable includes: Age, sex, marital status, educational status, distance from residence area to health center and economic status. Service factors includes: Waiting time preceding consultation, consultation time, pharmacy services, laboratory services, organization/activity of service. A clinical variable includes: Type of psychiatric disorder, duration of the

illness and coo morbid medical or psychiatric disorder. Additional patient related variables patient expectation and patient attitude and past experience.

### Operational Definition

**Patient satisfaction:** Pleasant feeling which patients get after receiving services they wanted.

**High satisfaction:** Satisfaction score above the average. In this study those who are scoring (above 39) on Charleston Psychiatric out Patient Satisfaction Scale (CPOSS) (i.e. except item 8 and 15, which are anchor items) using mean score as a cut of point.

**Dissatisfied:** Satisfaction scale score below average (Score <39).

**Social functioning:** Social Functioning Questionnaire (SFQ) scale will be and functioning is put as poor (above and equal to 10) using 10 as a cut of point.

**Patients attitude:** using six semi structured questions that were adopted from a study done in India, attitude was considers as good (above equal to 18) using mean score of 18 as a cut of point (44).

**Patient's expectation:** Using five semi-structured questions that were adopted from a study done in India, expectation was considered high expectation (above and equal to 9) using mean score of 9 a cut of point.

**Co-morbid medical or psychiatric disorder:** Is proven or diagnosed medical or psychiatric problem additional to the existing psychiatric condition. It was determined by reviewing patient chart.

### Data collection procedures

The study questionnaire contains sections and questions to collect data on socio-demographic characteristics of students (e.g. age, sex, educational status, religion, educational achievement in the previous year. Charleston Psychiatric out Patient Satisfaction Scale (CPOSS), a 15 item scale assessing patient satisfaction on a Likert scale ranging from 1 to 5, where 1 is "poor" and 5 is "excellent".

The scale is scored by summing each item, except the two anchor questions that are not included in the total score. The CPOSS, demonstrated high internal consistency ( $\alpha=0.87$ ). The last item, which assesses behavioral intent to recommend the health center, users a 4 point response format: 4, yes, definitely; 3, yes, probably; 2, no, probably not; and 1, no, definitely not (43). The tool was validated in Nigeria and showed internal consistency ( $\alpha=0.91(46)$ ). The type of psychiatric disorder, number of drug and coo morbid psychiatric or medical illness were identified based on patients chart review according to Diagnostic Statistical Manual of Mental Disorders Fourth Edition Text Revision (DSM-IV TR). Patients psychological functioning is going to measured using Social Functioning Questionnaire (SFQ), which contains eight items, measure of general social functioning scale in a study done the university of Virginia (47). Functioning rated according how patients had been feeling over a scale of 0 to 3. Response options were: 0 (most of the time), 1 (quite often), 2 (sometimes), and 3 (not at all). Items were also coded so that 0 corresponded to no problems with social functioning and 3 corresponded to severe problems with social functioning.

The total SFQ range from 0 to 24. Patient attitude to wards mental

health service is going to be assessed using 6 question's on 5-point Likert scale ranging from strongly agree (1) to strongly disagree (5). Patient expectation is going to be assessed using 5 questions on a 4 point Likert scale. The total score was 15 since the last option no expectation taken as a missing value. The questionnaire for attitude and expectation were adopted from a study done in India. The questionnaire was translated from English to Amharic by experts and professional translators.

**Data quality control**

To maintain the quality of data, data collectors were trained. Pre test was conducted in order to measure the validity of the tool. Three data collectors and 2 supervisors were assigned and they conducted chart review plus face to face interview and for onsite supervision during data collection period and review all the data filled during the data collection period so as isolate to incomplete incoherent data. The questioner was translated from English to Amharic by experts and back to English to assure same meaning was convened.

**Data processing and analysis**

The data was coded and entered to EPI data and exported to Statistical Package for Social Sciences version 20 (SPSS-20) computer software for farther analysis. Descriptive statistical procedures were utilized to describe the variable using frequency tables, graphs and charts. Binary logistic regression was fitted to the data. Bivariate and multivariate binary logistic regression analysis was conducted to identify factors associated with outcome variable.

**Ethical considerations**

Ethical clearance was obtained from Amanuel Mental Specialized Hospital institutional review board. Then the purpose, importance and confidentiality of the study explained to each participant before they engage in to actual activities. Participants also informed that they will never get any benefit because of part of it and no harm on them if they will not agree to participate or withdraw participation on the study. Finally, they were asked about their willingness to participate and written consent will obtain.

**Result**

**Socio demographic characteristics of participants**

Two hundred eighty-seven respondents were participated with response rate of 98.2%. Out of the study participants 224 (76.97%) were males and 63(21.6%) were females. Of the participants 235 (80.75%) they came from areas of addisababa and urban areas out of addisababa, 50 (17.18%) came from rural area. In addition, 224(76.978%) of the participants crosses less than 5 KM in order to reach to health centers. Also 63(21.6%) of the participants traveled greater than 5km in order to get mental health service at the health centers. On the other hand 210(72.16%) of the participants were rich and 77(26.4%) were poor based on their wealth index.

**Prevalence of patient satisfaction**

Among the rich 48.5% were satisfied and from the participants who are categorized as poor on the wealth index 80.5% were satisfied. Among the male participants 116(51.7%) were satisfied, female participants were 48 (76.19%) satisfied, among the participants who were living in urban 122(51.9%) were satisfied, those who were living

**Table 1:** Distribution of dissatisfaction among patients.

Variables		Frequency	
		Satisfied	Dissatisfied
Sex	Male	116	108
	Female	48	15
Residence	Urban	122	113
	Rural	42	8
Distance	<5KM	116	108
	>5Km	48	15
Wealth index	Rich	102	108
	Poor	62	15

**Table 2:** Factors associated with patient dissatisfaction.

Variables		Frequency		COR (95% C.I.)	AOR (95% C.I.)
		Satisfied	Dissatisfied		
Sex	Male	116	108		
	Female	48	15	2.97(1.57-5.63)	2.41(1.24-4.65)
Residence	Urban	122	113		
	Rural	42	8	4.86(2.18-10.8)	4.15(1.84-9.35)
Distance	<5KM	116	108	1	
	>5Km	48	15	2.97(1.57-5.63)	3.21(2.0-7.52)
Wealth index	Rich	102	108		
	Poor	62	15	4.37(2.34-8.18)	2.5(1.25-8.25)

**Note:** for all significant variables p.v were ≤0.05. The model adequately fits the data at P-value 0.75 (Hosmer and Lemeshow Test; for goodness of fit).

in rural areas 42(84%) were satisfied. In addition those who were living less than 5 km were 116(51.78%) satisfied and participants who were living greater than 5 km far apart from health centers were 48(76.19%). Among the participants 102 of them were rich (48.5%) satisfied and 62 were poor and 80.5% were satisfied (Table 1).

**Binary logistic regression**

Both bivariate and multivariate binary logistic regression was fitted to the data. During bivariate analysis; Factors that was associated with dissatisfaction at p value less than 0.2 were entered to multivariate logistic regression.

During multi variable binary logistic regression factors such as wealth index, residence, distance and sex were significantly associated with dissatisfaction at p value less than 0.05 (Table 2).

The odds of being dissatisfied were 2.4 times higher among female than males; (AOR=2.41; (95% CI; 1.24-4.65).

Being dissatisfied were 4.15 times higher among people living in rural areas than people living in urban; (AOR=4.15; (95% CI; 1.84-9.35).

The odds of being dissatisfied were 3.21 times higher among people comes from >5km distance than people who come <5km distance; (AOR=3.21; (95% CI; 2.0-7.52).

The odds of developing dissatisfaction were 2.5 times higher among poor patients than rich peoples; (AOR=2.5; (95% CI; 1.25-8.25) (Table 2).

## Discussion

The overall satisfaction of patient toward mental health service on the health centers were 57%. This is lower than survey conducted in, Ireland overall satisfaction was 90% (11), in Sweden 77% [20] and in india 90.7% [22]. The possible explanation for this study seems patient's satisfaction depends on their personal beliefs and preferences as well as their expectations about the service and the type of illness. Satisfaction is higher study conducted in Copenhagen Denmark compare to this study [7]. Lower level of service satisfaction were associated with being jobless, having medical and psychiatric problems. Patient satisfaction in this study is lower than other study done in Geneva, Switzerland among twelve public out Patient psychiatric service is 93.1% [14].

And also this study were higher than finding done in Qatar 49% (38) The possible reason for the difference in the magnitude of satisfaction can be due to the number of sample size, type of measurement tool used, nature of study participant, difference in mental health literacy, mental health service and availability of alternative mental health service with in the country, characteristic difference with in the study population and study setting.

The finding was similar with a study conducted in jimma Hospital shows that the overall satisfaction was 57% [10]. Which similar with study done at health centers that render outreach mental health services Addis Ababa. In Jimma Hospital patient satisfaction decreased with increased length of waiting time. There was also significant association between satisfaction and perceived length of time spent with health care provider, the longer time spent with physician patients satisfied.

Female Participants were highly dissatisfied, which is similar with my study. The possible explanation for this study seems patient's satisfaction depends on their personal beliefs and preferences as well as their expectations about the service and the type of illness. Satisfaction is higher study conducted in Copenhagen Denmark compare to this study [7].

The possible reason may be un favorable attitude towards the service creates a negative environment doctor patient relationship and that can decrease compliance and trust of treatment and increase drop out from follow up. In addition availability of medication and health center staffs and customer handling.

## Limitation of the Study

Some of the patients who were dissatisfied with the service might not come. Social desirability bias.

## Conclusion

This study finds out that the prevalence patient satisfaction was 57%. Being male, Participants who came from urban area, those participants who were living less than 5 KM distance and participants who were categorized as poor on the wealth index have high significant association with patient dissatisfaction.

## Recommendation

- It will be better if the health center staffs arrange health education program about mental health and mental illness to patients, patient family and caregivers.

- It will be better those mental health and medical health professionals who working in health center and create awareness about the nature of mental illness, patient handling and treatment process to patients, patient families and other health center staffs.

- In order to see good mental health progress among patents those mental health professional who are working at the out patient psychiatry department should properly advise & treat patients, inform patients and families about the importance respecting their appointment and continuing the follow up and treatment.

- It will be better if those health professionals who are working at the health center refer patient to nearby health facility where medication and health professionals are available.

## Declarations

### Ethics approval and consent to participate

Ethical clearance was obtained from Amanuel Mental Specialized Hospital Institutional review Board (AMSH IRB). The respondents had been given the necessary explanation about the purpose and the procedure of the Study and their right to participate or not to participate in the study. Written informed consent was obtained from participants. Confidentiality of the response had been declared to the respondents by the anonymity of the interviewer administered questionnaire.

### Availability data and materials

The data used to support the findings of this study are available from the Principal investigator or corresponding author upon request.

### Funding agency

Amanuel mental Specialized Hospital.

## Author's Contributions

Gebresilasie Zenawi, Addis Birhanu, Wubit Demeke, Kibrom Haile and Asrat Chaka were involved in design of the study and in the coordination, reviewed the article, analysis, and report writing and drafted the manuscript. All authors read and approved the final manuscript.

## Acknowledgment

The authors would like to acknowledge Amanuel Mental Specialized Hospital for ethical approval. They also would like to extend their appreciation to data collectors and the study participants for their devoted cooperation. This research work was funded by Amanuel Mental Specialized Hospital.

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