Original Article

Trends in using telepsychiatry service at a tertiary level psychiatric hospital in Bangladesh – a retrospective register study

Sadia Afrin Shampa, Helal Uddin Ahmed, Ahsan Aziz Sarkar

Background: Telemedicine has been gaining worldwide popularity lately. Bangladesh is also a part of this venture. Effective service planning depends on knowing the trends of service use.

Objectives: To identify the trends in using telepsychiatry service at a tertiary level psychiatric hospital.

Methods: This was a retrospective study in which data were collected from telepsychiatry service patient records of a tertiary psychiatric hospital. In between 2018 and 2021, 270 patients took the service. All were included and the record contained their name, age, gender, diagnosis and treatment.

Results: Mean age of the patients was 31.6 ± 14.5 years with a range between 4 and 75 years and around 50% of the patients were in the 20-40 years age group. Male patients constituted 46.5% of the sample. Majority of the patients took services for neurotic, stress related and somatoform disorders. Sertraline and benzodiazepine were found to be most commonly used medication.

Conclusions: The study showed that majority taking telepsychiatry care were having neurotic or stress related and somatoform disorders. Pharmacotherapy was the main way of treating patients.

Declaration of interest: None

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Keywords: Telepsychiatry, tertiary hospital, Bangladesh.

Introduction

Telemedicine is the remote delivery of healthcare services through telecommunication infrastructure. When psychiatric services are provided in this way it is termed telepsychiatry. Telepsychiatry allows mental health professionals to evaluate, diagnose and treat patients without the need to inpatient visit. The patients can communicate with physicians from their homes by using their own personal technology or by visiting a dedicated telehealth setup. Provision of remote service delivery, easier access to specialists, convenience, cost effectiveness, time effectiveness are the reasons behind its rising popularity.[1,2]

Praava Health, Tonic, Maya, Sebaghar, LifeSpring, Synesis Health, Pulse Healthcare are among the private organizations providing telemedicine services in Bangladesh. Other than these non-government institute in recent times Bangladesh government has put a lot of emphasis in this sector. In continuation of this a process a telepsychiatry center was opened in 2018 in National Institute of Mental Health, a specialized tertiary care psychiatric hospital.

Bangladesh has limitations regarding manpower, infrastructure, integration and budget. Countrywide only

350 psychiatrists are serving nearly 170 million people.[3] These limitations have made most of the population unable to access mental health care services. Despite that the country has a strong telecommunication sector. Mobile phone users and internet users are increasing. There were 52.5 million internet users in Bangladesh in January 2022. This sector can be used in creating awareness and delivering mental health care service by maximizing our limited resource. Keeping this situation in mind, we conducted a study to identify the trends in using telepsychiatry service in a tertiary care psychiatric hospital.

Methods

This was a retrospective study in which data were collected from telepsychiatry service patient records of a tertiary psychiatric hospital. In between 2018 and 2021, 270 patients took the service. All were included and the record contained their name, age, gender, diagnosis and treatment. Following data entry, it was analyzed using SPSS 28 version. Chi-square test was conducted to see differences in service using pattern across demographic variables.

Results

A total of 270 patients received telepsychiatry services in between 2018 and 2021. The mean age of the patients was 31.6±14.5 years. It ranges between 4 to 75 years. Age-wise child and adolescent patients constituted 20.4%, geriatric patients (>60 years) 6.7% and around 50% of the patients were in the 20-40 years age group. Male patients constituted 46.5%.

Majority of the patients took services for neurotic, stress related and somatoform disorders followed by mood disorders and schizophrenia spectrum disorders (Figure 1). Age-wise break down of distribution of mental disorders also shows that in all three groups – child and adolescent, adult and geriatric – most common reasons for seeking services were neurotic, stress related and somatoform disorders and mood disorders (Table 1).

In reference to treatment pattern, we observed 72 (26.5%) patients were prescribed a single drug while 197 (72.4%) were prescribed more than one drug. Risperidone, haloperidol, olanzapine and trifluoperazine were the most commonly prescribed antipsychotics. Among the SSRIs - fluoxetine, escitalopram and sertraline and TCAs – amitriptyline, nortriptyline and clomipramine were the most commonly prescribed drugs. A significant number of patients received benzodiazepines (42.6%) along with one/more psychotropics drugs.
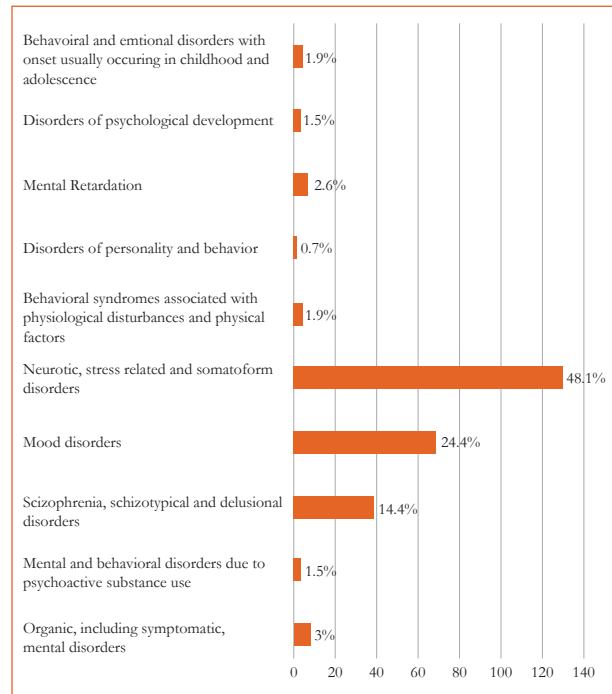

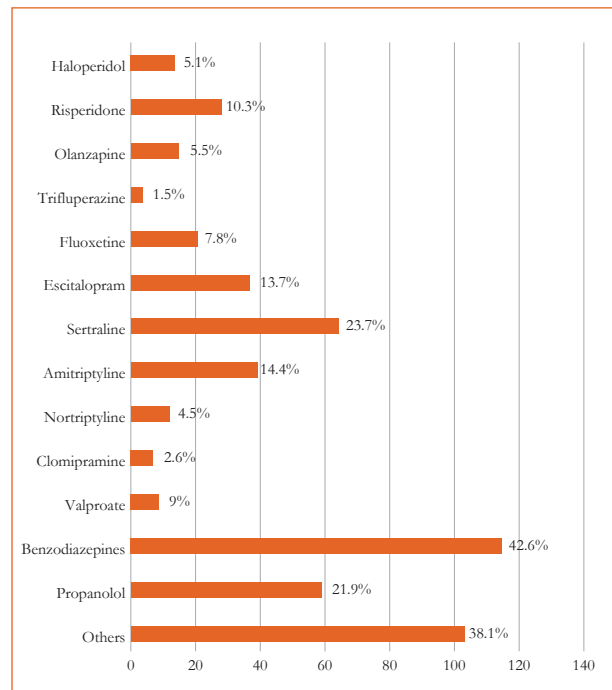**Figure 1: Graphical representation of various mental disorders among the patients**

Figure 2: Commonly prescribed drugs in telepsychiatry service

Table 1: Distribution of mental disorders across various age groups taking telepsychiatry service from NIMH (N=270)

Diagnosis	Child and adolescent (n=55)	Adult (n=197)	Geriatric (n=18)
Organic, including symptomatic, mental disorders	2 (3.6)	2 (1.5)	3 (16.7)
Mental and behavioral disorders due to psychoactive substance use	-	4 (2)	-
Schizophrenia, schizotypal and delusional disorders	7 (12.7)	32 (16.2)	-
Mood disorders	9 (16.4)	49 (24.9)	8 (44.4)
Neurotic, stress related and somatoform disorders	24 (43.6)	100 (50.8)	6 (33.3)
Behavioral syndromes associated with physiological disturbances and physical factors	-	5 (2.5)	-
Disorders of adult personality and behavior	-	2 (1)	-
Mental retardation	6 (10.9)	1 (0.5)	-
Disorders of psychological development	2 (3.6)	1 (0.5)	1 (5.6)
Behavioral and emotional disorders with onset usually occurring in childhood and adolescence	5 (9.1)	-	-

Cell values are frequency (percentage)

Males were more like to seek consultations for schizophrenia spectrum disorders and females for mood disorders and neurotic, stress related and somatoform disorders; however, the difference was statistically insignificant (X^2=12.6, p=0.1770) (Table 1). In both groups most common reasons for seeking consultations were mood and neurotic, stress related and somatoform disorders.

Discussion

Telepsychiatry was introduced in National Institute of Mental Health, Dhaka in 2018. In this programme, communication between this tertiary psychiatric hospital and upazila health complexes were made through telemedicine programme. Patients are referred from remote areas, where psychiatric services are not available and connect via video teleconference equipment available in the upazila health complex. During consultation over video call a health care person remains present with the patient on the patient's end. Maintaining this model patients are served using telepsychiatry.

We observed that, adults were more like to use telepsychiatry services. People who were born before 1990s are less likely to use telepsychiatry services because of technological naivete.[4] In our study, most of the patients sought services for neurotic, stress related and somatoform disorders or mood disorders. In children most common reason for seeking telepsychiatry service was neurotic, stress related and somatoform disorders whereas in adults the most common reasons were neurotic, stress related and somatoform disorders or mood disorders. Dham et al. (2018) also observed similar trend in developed country like Australia where depression and anxiety were the most common diagnoses.[5] We didn't observe any significant difference in diagnoses between male and female patients. Rahman et al. (2022) while studying telehealth service noted, males are more likely to use such services.[6]

Previously it was reported that telepsychiatry improves patients' adherence to treatment, follow-up rates, clinical symptoms, helps in overcoming stigma and discrimination and save cost expenses accessing health care with better satisfaction and usability outcomes.[7] Telepsychiatry service is gaining popularity in Bangladesh. To make it more effective and available few measures can be taken. The following measures would improve the service delivery system and patient satisfaction.

1. Developing telemedicine policy and law for Bangladesh.

2. Establishment of a licensing requirement for providers.

3. Ensuring patients' privacy and confidentiality.

4. Improving technological infrastructure and efficiency for better service delivery.

5. Evaluating patients' satisfaction and research on telepsychiatry.

6. Campaigning about telepsychiatry facility among mass population

7. Strengthening the existing telepsychiatry service both in government and non-government mental health sector

8. Providing psychological treatment through government facilities.

Technology can solve the issues like lack of health service in community level and integration among health care system in low to middle income countries. Telepsychiatry can address these problems if implemented properly. Findings also emphasized creating skilled mental health professionals for managing neurotic, stress related and somatoform disorders and mood disorders in telepsychiatry setting.

Sadia Afrin Shampa, Medical Officer, National Institute of Mental Health, Dhaka, Bangladesh; **Helal Uddin Ahmed,** Associate Professor, Psychiatry, National Institute of Mental Health, Dhaka, Bangladesh; **Ahsan Aziz Sarkar,** Assistant Registrar, Psychiatry, National Institute of Mental Health, Dhaka, Bangladesh.

Correspondence: : Sadia Afrin Shampa, Medical Officer, National Institute of Mental Health, Dhaka, Bangladesh.
Email: sadiaafrinbm2828@gmail.com

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