
Department of Psychiatry, College of Health Sciences, Addis Ababa University.

Research Thesis



A psychotropic medication prescription pattern in children and adolescents at the psychiatry outpatient clinics of Yekatit12 Hospital Medical College (HMC), Addis Ababa, Ethiopia. A retrospective chart review.

A final research Thesis submitted to the Department of Psychiatry, School of Medicine, College of Health Sciences, and Addis Ababa University, Ethiopia in partial fulfillment of the requirements for the specialty program in Psychiatry.

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ACRONYMS

AAU Addis Ababa university

ADHD Attention-deficit/hyperactivity disorder

APA American Psychological Association

ASD Autistic spectrum syndrome

CWS Child welfare system

IDDD Intellectual disabilities and developmental disabilities

LMIC Low and middle-income countries

MD Medical doctor

MDD major depressive disorder

OPD Outpatient department

SSRI Selective serotonin reuptake inhibitor

U.S. FDA United States food and drug administration

Abstract

Introduction - Mental disorders account for a growing proportion of the worldwide burden of diseases. The prevalence of mental disorders in Children and Adolescents ranges from 17% to 22% and contributes to 15% of children and adolescents. In Ethiopia, there are not that many studies on the prevalence of childhood and adolescent psychiatric disorders which range from 3.5% to 25.2%. The practice of prescription of psychotropic medications is different in different settings but there are no studies on the prescription pattern of children and adolescents in Ethiopia. This study tries to see the pattern of psychotropic medication prescription in one of the two governmental children and adolescent Yekatit, psychiatry clinics in Addis Ababa.

Objective: -To assess the Psychotropic medication prescription pattern in children at psychiatry outpatient clinics of Yekatit12 Hospital Medical College, Addis Ababa

Methods – A retrospective chart review, an outpatient department of Yekatit Hospital in children and adolescents <19 and seen from January – to December 2019.

Result: -In the present study, antipsychotic drugs were the most prescribed psychotropic drug, followed by antidepressant drugs. There is also moderate use of mood stabilizers and antiepileptic drugs. Risperidone was the most frequently prescribed drug among second-generation antipsychotics. Fluoxetine was the most prescribed class of antidepressants.

Conclusion and recommendation: -Improving medical record completeness services is an important way for improving the quality of healthcare. It is also very important to follow state us and for monitoring adverse drug Keywords. **Keywords** -Psychotropic medication, prescription pattern, children.

1. Introduction

1.1 Background

Psychotropic drugs' importance, except stimulants, has not been effectively researched well in children and adolescents in terms of benefit and safety. Their use in children is mostly based on the extrapolation of information from adult studies (1).

The American Psychological Association (APA) expressed significant concern that only one in five children receives services provided by appropriately trained professionals. Approximately 8 million child adolescents licensed were on more than one psychotropic medication worldwide. Studies done in sub-Saharan Africa suggested that at suggested that a specific psychiatric disorder and socio-demographic parameter have had an elation with psychopathology that may place children and adolescents in areas of greatest deprivation and risk (2).

Medication used in the treatment of youth with mental illnesses is often used “off-label”,

Medications prescribed in-demand for children and 12 do not as yet have United States food and drug administration (U.S. FDA) approval and there are many medications approved for adults that are used off-label for youth (2)

Many youths with mental disorders benefit from psychotropic medications used as part of a comprehensive treatment plan. Medications may be over or under-prescribed when prescribers do not have sufficient training in the use of psychotropic medications in youth but are practicing. This might happen where there is an entree to prescribers with know-how in treating children with psychotropics. There are limited choices of drugs to be prescribed for some of the behavioral disturbances in children and adolescents. (1)

For instance, in Europe and America, where specialized child and adolescent health care services are available, psychosocial management is more preferred, especially for mild to moderate illnesses. Studies conducted in Africa among the adult population have shown that the off-label use of psychotropic medications has had a preference for newer agents due to, cost and polypharmacy. The area of child and adolescent psychiatry service continues to lag behind other areas of mental health service provision in low-resource settings (1, 3, 4). Factors influencing preference of treatment include the type and severity of the psychiatric disorder, the quick

symptom relief, and lack of access to multidisciplinary care, particularly in low and middle-income countries (LMICs) (5). This might be because of the lesser attention given to the child and adolescent mental health issues or because of ethical and practical difficulties in researching this age group. Mental hospital-based data on child and adolescent psychiatric services are uncommon in low and middle-income countries (LMIC), although such data are important for service development and planning. There is a need for data on the prevalence of child and adolescent neuropsychiatric disorders and their treatment. Child and adolescent psychiatry lag behind other areas of mental health services in LMICs (4, 5). Child and adolescent services are being run by general adult mental specialists, who are few, especially in a country like Ethiopia.

There is no adequate information on the patterns of drug use in different parts of the world including Ethiopia. The shortage of data on prescription patterns and the caution use indicates that medication utilization is generally may not rational (6). Actual clinical prescriptions often are different from the laid down clinical guidelines for psychiatric drug research there is a gap between guidelines and prescriptions for psychotropic medications commonly prescribed drugs such as antidepressants (8). This gap is also noticeable for drugs such as antipsychotics (9). Although the usage of high-dose prescription and polypharmacy has been studied in chronic patients with schizophrenia, relatively few studies have been done on these treatment strategies in the early stages of the disease (10).

1.2 Statement of the problem

Discrepancies because of their potential clinical and economic impact, discrepancies between clinical trials and prescriptions in naturalistic conditions need to be identified discrepancies may associate with lower efficacy (e.g., insufficient dosage or duration) or with increased risk of adverse effects (e.g. hazardous co-prescription). Prescription studies became essential for assessing drug use patterns in health facilities. It also identifies opportunities for corrective measures to enhance the achievement of therapeutic goals and patients' quality of life (11). For developing countries where resources are more limited, the costs of inappropriate drug prescription can be enormous in addition to the risk of clinical consequences. It becomes necessary that studies on prescription be carried out to ensure rational and cost-effective use of doors to efficiency and entry, and reproduced side effects (11). Therefore, this study aimed to study Psychotropic medication prescription patterns in children at psychiatry outpatient clinics of Yekatit12 Hospital Medical College, Addis Ababa.

1.3 Significance of the study

This study was the first of its kind to describe the prescription pattern of psychotropic medications in children in Ethiopia. It described the routine practice of psychotropic prescription in children at Yekatit 12 Hospital psychiatry outpatient clinics. It identified their indication indications and the range of dosage. The finding from this study can be used as baseline data for future prospective studies and it can help to give directions for a future clinical trial on the pharmacological management of childhood mental health problems. It is also expected that the result will inform physicians practicing in the child and adolescent psychiatry clinics in understanding the knowledge gap between the treatment guidelines and the actual practice. This will later create opportunities for improving the medical education of the health professionals and better management of patients.

2. Literature review

A study shows Racial/ethnic differences in the use of psychotropic medication in high-risk children and adolescents in 1991, describing the level of psychotropic medication use and patterns of such treatment among school-aged children in foster care. The study used structured survey interviews to assess children, an aged tattoo which was three-three-county service areas, it has found that 16% of these school-aged children in foster care had taken psychotropic medication during their lifetime and stimulants (62%) were the most commonly used class of drugs (12)

However, the drug of another class of medication was not anti-depressant present at 0%, anxiolytics, and antipsychotic at 2%, and mood stabilizers at 12%. Finally the study concluded that General Practitioners and pediatricians have a role in the off-label-based treatment of youths with psychotropic medications (13).

A Longitudinal study was done in the USA to identify the prescribing patterns for psychoactive medications in community-based individuals with developmental disabilities. The study evaluated the changes in all ranges of psychotropic medication usage in children and adolescents from a population-based analysis of community treatment data on nearly 900,000 youths enrolled in 2 US health care systems. Total psychotropic medication prevalence for youths increased 2- to 3fold than adult patients. In 1996 the occurrence of psychotropic medication between children and adolescents younger than 20 years was strangely alike (5.9%-6.3%) in all 3 sites, through stimulants and antidepressants dependably graded first and second. Medicaid always has beat health care society by huge limitations, especially agonists, neuroleptics, mood-stabilizer, anticonvulsants, and lithium. Adolescents in health care governments had comparable rates with Medicaid-insured adolescents for antidepressants and hypnotics. Over several years, there was a comparative rise in females getting stimulants than in males who were given antidepressants (14).

A cross-sectional survey was conducted in Australia to assess the pattern of prescribing psychotropic medications to children by all registered general pediatricians and Child and adolescent psychiatrists. 72% of physicians stated that they prescribed combined medications. Frequent combinations included a stimulant and alpha 2 agonists like clonidine more practiced by pediatricians [64%] by child psychiatrists [51%] whereas a stimulant was more practiced by child psychiatrists [36%] than pediatricians [29%]. Off-label prescribing was reported by 40%. Among the off-label 5% of them had prescribed psychotropics for children less than 3 years of age. Psychotropic drugs are the major prescribed medication classes being prescribed regularly. Mixtures of psychotropic medications uses were common and there was also prescribing even for actual undeveloped children (15).

Another study from conducted on Australian children, to investigate inpatient prescribing patterns of psychotropic medication in a pediatric psychiatric hospital from 1991–to 1998. Patterns of total psychotropic drug use and the proportionate use of each drug class increased by 73.0% throughout the study. The greatest relative increase was in the use of alpha-2 antagonists (from 3.3% to 23.6%), for antidepressants (from 35.6% to 77.3%), mood stabilizers (from 14.9% to 32.6%), and stimulants (from 10.5% to 20.6%). Antipsychotic use showed no net change, although the use of atypical agents largely increased than the conventional drugs. These findings document a marked and continuing increase in psychotropic drug use in children (16-17).

Another study from Ireland investigated the pattern of prescribing benzodiazepine (BZD) in the Irish pediatric population [0-15 years] from the data obtained from the Irish General Medical Services (GMS) scheme pharmacy database [January 2002 and December 2011] and the Health Service Executive (HSE) in 2015. This study has found that the Prescribing proportions have the same pattern as that of European countries (18)

In another study from Denmark which is high-income country prescriptions of psychotropic stimulants, antidepressants, antipsychotics, and anxiolytic medications for children and adolescents were investigated. The study has found that the occurrence proportions were lesser in anxiolytics. Stimulants and antipsychotic occurrence proportion were considerably greater in males than females, while females considerably took more antidepressants. The increment in the prescription of both antidepressants and antipsychotic drugs was mainly because of the

importance between the 14- to 17-year-olds. The distributed prescriptions of psychotropics for children and adolescents, even, are still smaller than in other Western countries (17, 20).

From the low-income countries, Botswana and Nigeria study involved the extraction of sociodemographic and clinical information from the children's children medical documents with an age range of younger than 17 years and between three and 18 years respectively Results - A total of 238 files were used for this report in Botswana, and 393 children and adolescents in Nigeria were seen. In Botswana 50.4% of children had a pharmacological treatment, 70.8% had mono-therapy mostly, this the most frequently prescribed medication was antipsychotics (40%). Off-label use of antipsychotics and poly-pharmacy was 31.2% and 29.2% respectively. In Nigeria, a total of 174 (44.3%) females and 219 (55.7%) males were assessed. (54.7%) of the children had more than one psychotropic medication prescribed (poly-pharmacy), while 42.7% were on a single psychotropic medication. The Conclusion was psychotropic prescribing in that setting is consistent with the reports from developed countries where more specialized care does not exist. Further studies will be needed to define the full range of psychotropic use (1, 3).

A retrospective audit was done on prescribing pattern of psychotropic medications in child psychiatric practice within Botswana mental referral hospital. The audit was done on children 17 years and seen from January 1, 2012-July 31, 2016. The study result was gathered from 238 files of children and adolescents with a mean age (SD) of 12.41 (4.1) years. A total of the 120 (50.4%) patient with were treated with psychotropic and m actions, and only 85(70.8%) had monotherapy. The most commonly prescribed psychotropic medications were antipsychotics (40%). It is also observed that antipsychotics polypharmacy and Off-label uses were 29.2% and 31.2% respectively (21)

A cross-section was a study carried out over 2 years in Nigeria on psychotropic prescriptions for the treatment of schizophrenia. psychiatric outpatient clinic of the hospital, Haloperidol (mean dose 14.77 ± 6.28 mg and 11.44 ± 5.55 mg for initial and current) and other first-generation antipsychotics were the most commonly prescribed for new cases (98%). The mean duration of psychotropic *medication* use was 7.78 ± 5.6 years. All the patients were prescribed trihexyphenidyl, and 56.3% of the patients' medications were changed as a result of side effects (22)

There were no studies done to see the prescription pattern of psychotropic drugs for children or adolescent patients who were anti-depressant. The first one is in Gondar University Hospital a retrospective prescription paper review from September 1, 2011, to February 30, 2012. Out of the total 1880 prescribed, psychotropic and narcotic drugs reviewed in this study:21.5% of them were injectable medications, 76.5% were oral medications and the remaining 2% were prescribed in both dosage forms. Among the different classes of drugs, anticonvulsants (86.3%) were the most prescribed medications, followed by antianxiety (9.68%) and antipsychotics (2.67%). And of the narcotics, pethidine was the most often drug prescribed followed by morphine (6). The second one is a retrospective cross-sectional study which is done on the Prescription pattern of the psychotropic drug in Shambu general hospital. It was conducted from January 28 to February 08/2018 on prescription papers containing psychotropic medication for a total of 384 prescription papers containing psychotropic medications majority of the patients attending the psychotropic medication were aged between 20-49 years. The most commonly prescribed categories of medications were: antipsychotic, tricyclic antidepressants (TCAs), antiepileptic, anxiolytics/sedatives, anticholinergics, and selective serotonin reuptake inhibitors (SSRIs) which is ordered in descending fashion. Among the individual drugs, the most commonly prescribed antipsychotic was chlorpromazine 126 drugs (20.66%). From antidepressant categories tricyclic antidepressants (Amitriptyline 73 drugs (11.97% whereas most frequently ordered and followed by the Selective Serotonin Reuptake Inhibitors fluoxetine 16 drugs. Phenobarbitone 54 drugs (8.85%) and phenytoin 32 drugs (5.25%) were the most often prescribed psychotropic drugs in the final antiepileptic drugs categories. 38 Diazepam and 30 trihexyphenidyl drugs were the least prescribed medications from anxiolytics and anticholinergics class of drugs respectively (23).

3. Objective

3.1 General objective

To describe the prescription pattern of psychotropic medications in children and adolescents seen at Yekatit 12 hospital psychiatry outpatient clinics.

3.2 Specific objectives

- list the commonly prescribed psychotropic medications in children and adolescents seen at Yekatit 12 hospital psychiatry outpatient clinics.
- Describe the indications for psychotropic medication prescription in children and adolescents seen at Yekatit 12 hospital psychiatry outpatient clinics.
- Assess the degree of polypharmacy in children and adolescents seen at Yekatit 12 hospital psychiatry outpatient clinics.
- Describe each psychotropic medication's dosage range.

4. Methodology

4.1 Study setting

The study was conducted at Yekatit 12 hospital psychiatry outpatient clinics. Yekatit 12 hospital is a specialized hospital located in Sidist Kilo in front of the hypnotist 12 Martyrs Monument. The hospital was established in 1915 by Emperor Haileselassie I and was called Haileselassie I Hospital till the 1970s. After the 1970s revolution, it has been renamed Yekatit 12 Hospital. Its capacity has been increasing, and at present, there are more than 300 beds that are distributed in 16 different inpatient wards. Furthermore, there are more than 21 outpatient departments (OPDs). The psychiatry department has 5 OPD clinics, 3 psychiatrists, 7 nurses, and 3 residents daily working there. It general adult psychiatry service and is also one of the three governmental child and adolescent psychiatry referral centers in Addis Ababa. Psychiatric services recently started inpatient treatment for patients with substance use disorders.

4.2 Study design

a retrospective chart reviews

Study period: - The period of study was from January to December 2019

4.3 Study population

The source of the population was the children and adolescents aged 19 years and under, attending Yekatit 12 Hospital psychiatry outpatient clinics in the past years and are prescribed psychotropic medications.

4.3.1 Sampling technique

The diagnosis, chart number, and age of all newly evaluated children and adolescents seen between January and December 2019 were identified from the HIMIS record book. Then their charts were retrieved from the card room and all the relevant data was collected using a data extraction tool

4.3.2 Operational definition

Children – are persons who are 19 years old and under 19 except national law describes a person as an adult at a prior age.

Polypharmacy- The usage of two or more medications for more than 240 days to five to nine medications used for 90 days or more

Psychotropic medication - any medication that disturbs behavior, mood, thoughts, or perception.

It's a sunshade word for many diverse medications, including prescription drugs and commonly misused drugs. There are five main groups of lawful psychotropic drugs: anti-anxiety agents, antidepressants, antipsychotics, mood stabilizers, and stimulants.

4.4 Inclusion and exclusion criteria

4.4.1 Inclusion criteria

- I. Children aged 19 years or under
- II. Seen at Yekatit 12 hospital psychiatry clinic between January and December 2019
- III. Prescribed psychotropic medication for any indication
- IV. Without any restriction to the diagnosis of cases. Diagnosis includes, but will not be limited to DSM-5 diagnostic categories and epilepsy.

4.4.2 Exclusion criteria

- I. Cases that were managed only with non-pharmacological interventions
- II. Cases that were managed with non-psychotropic medications
- III. Cases that had incomplete registration of medications

4.5 Data collection procedure

4.5.1 Data collection tool

A structured data extraction tool was developed and it was used to extract socio-demographic and clinical data from patient charts. Hospital card number, age, sex, address, living status (with family, relatives, or others or in an institution), educational level, and occupation were collected

as part of basic socio-demographic information and clinical diagnosis, treatment provided, number, type, dosage and duration of psychotropic medication prescription, etc. were extracted as part of patient's clinical data. See annex 1.

4.5.2 Data collection procedure

Data collectors were given online training about the objectives of the study, inclusion and exclusion criteria, the data extraction tool, and how to use it. Data were collected by residents and psychiatry OPD nurses. The HMIS registration book in the nurse station of Yekatit 12 hospital psychiatry clinic was used to identify child and adolescent cases seen during the study period. All charts of child and adolescent cases seen during the period between January and December 2019 were obtained from the central card room. Charts of children and adolescents who fulfilled the inclusion/exclusion criteria included in the above specified period were assessed.

The developed data extraction tool was used to extract all the necessary information from the medical charts. Any missing relevant information will be recorded. Data were checked daily for completeness before charts were returned to the central card room.

4.5.3 Data analysis

The collected data were rechecked for accuracy, consistency, omission, and irregularities. It was coded and entered using the Statistical Package for the Social Sciences (SPSS) version 25. The data were cleaned again after the entry by doing frequencies and observing inconsistencies.

Descriptive statistical analyses (frequency and cross-tabulation) were done.

4.6 Ethical consideration

Before the start of data collection, ethical approval was obtained from the Department of Psychiatry, College of Health Sciences, and Addis Ababa University. Permission to conduct the study also be sought from Yekatit 12 Hospital Medical College. The name of patients and prescribers were not extracted from the medical charts to keep confidentiality.

5. Result

5.1 Sociodemographic characteristics

A total of 336 case files were used for this report. The mean age and SD were 12.20 ± 4.4 . More than 36% of the patients were 11-15 years of age and 65.5% were males. Half of the participants (48.8%) were enrolled in regular school and 88.1% of them lived with their families.

Table 1. The sociodemographic characteristics

Variable	recent	percent
Age of participants in year		
≤5	20	6
6-10	101	30.1
11-15	123	36.5
≥16	92	27.4
Sex		
Female	116	34.5
Male	220	65.5
Educational characteristics		
Enrolled in regular school	164	48.8
Enrolled in a special school	32	9.5
Not enrolled in school	140	41.7
Relation of family living with		
Living with primary family	296	88.1
Living with relatives	28	8.3
Living with non-relatives	5	1.5
Living with institution	7	2.1

5.2 Major diagnosis

Most of the children and adolescents were diagnosed with autism spectrum disorder and intellectual disability in equal proportion (26.5%). Then, schizophrenia spectrum and other psychotic disorders (12.8%), and depressive disorder (10.4%) either as single or multiple diagnoses were reported.

Table 2. The primary diagnosis of children and adolescents taking psychotropic medication at psychiatric OPD of Yekatit 12 Hospital

Variable	Recently	autism
autism Spectrum Disorder	89	26.5
intellectual disability	89	26.5
attention deficit hyperactivity disorder	35	10.4
schizophrenia spectrum and other psychotic disorders	43	12.8
depressive disorder	35	10.4
anxiety disorder	5	1.5
somatic symptom and related disorder	2	.6
a bipolar and related disorder	4	1.2
epilepsy	25	7.4
other psychiatric dx	9	2.7
Total	336	100.0

5.3 Comorbid recent diagnosis

The comorbid disorder in addition to the main psychiatric disorder were, epilepsy (20.8%), intellectual disability (14.3%), attention deficit hyperactivity disorder (6.3%), depressive disorder account 4.2%, ASD 2.7%, schizophrenia spectrum, and other psychotic disorders 3.9%, anxiety disorder 1.8% and conduct disorder had 0.9%.

5.4 Use of psychotropic drugs in children and adolescents

The repeated pattern of medication for this study was, risperidone at 40.5%, fluoxetine at 14.3%, imipramine at 9.5%, carbamazepine at 9.2%, and sodium valproate were 8.9% as shown in the table below.

Table 3. The frequency of psychotropic medication prescribed for children and adolescents seen at psychiatric OPD of Yekatit 12 HMC

Drugs	Frequency	Percent
Risperidone	136	40.5
Haloperidol	3	.9
Imipramine	32	9.5
Fluoxetine	48	14.3
Phenobarbital	23	6.8
phenytoin	24	7.1
sodium valproate	30	8.9
carbamazepine	31	9.2
sertraline	5	1.5
amitriptyline	1	.3
clonazepam	1	.3
olanzapine	1	.3
trifluorphenol	1	.3
Total	336	100.0

5.5 Indication

Concerning the indication of the drug 37.8% for behavioral disturbance, 31.3% for seizure, 13.4% were for depression and 11.6% for psychosis as shown below.

Table 5. Indications for prescribing psychotropic drugs for children and adolescents

Indication	Frequency	Percent
behavioral disturbance	127	37.8
psychosis	39	11.6
anxiety	6	1.8
seizure	105	31.3
depression	45	13.4
mood and psychosis	7	2.1
enuresis	4	1.2
obsession	1	.3
somatic	2	.6
Total	336	100.0

5.6 Prescribers

In this study, most of the medications were prescribed by psychiatric residents followed by psychiatry specialists as shown in the table below Table 6. The pattern of medication prescriber profile

	frequency	psychiatrist
psychiatrist	24	7.1
Psychiatry resident	311	92.6
General Practitioner	1	.3
Total	336	100.0

Therefore 41.9% were prescribed for psychotic, 25.6% were for depression, 18.1 for mood stabilizers, and 14.3% for epileptic

Figure 1- Categories of the prescribed medication

5.7 The number of medications prescribed

Figure 2 showed that 52% of the child and adolescents were prescribed one medication only, 30% of them have prescribed two medications, 14%, and 4% were prescribed three and four medications respectively

Figure 2. The number of prescribed medications in the case

Of the children and adolescents who had one drug prescription 164 were prescribed by a psychiatric resident, 9 were prescribed by a psychiatrist and 1 is prescribed by a general practitioner. On the other hand, 101 had prescribed two medications, 46 had three medications and 15 had four medications

6. Discussion

The main finding of this study is the use of antipsychotics is slightly higher than in another African countries like Botswana ([Olashore et al., 2017](#)). This is the first study to see the pattern of psychotropic medications among children at Yekatit 12 hospital in Addis Ababa, between January and December 2019.

It is the most common where child case was seen compared to other outpatient psychiatric clinics. This study found a different type of medication prescribed. Of the overall prescribed psychotropic medication, antipsychotics were the most frequently prescribed medication (42.0%). Another study done in Nigeria in children and adolescents from prescribed antipsychotic traditional or typical antipsychotics was still common. Similar to Botswana studies of psychotropic medication in children and adolescents, in this study, atypical antipsychotic was most frequently prescribed risperidone about 218, then followed by typical antipsychotic Haloperidol unlike study done in Botswana olanzapine was not the preferred drug in children instead it's the third preferred drugs in this study ([Bakare et al., 2011](#)),([Olashore et al., 2017](#)).

This shows that the prescribers are using the most preferable medication like developed countries and atypical antipsychotics such as risperidone are US FDA approved for pediatrics for use of psychosis, acute mania, and Autism related irritability. Even though risperidone may make children/adolescents restless and have abnormal movements like a tremor. ([Stahl, 2020](#)). One study of findings suggests that olanzapine is a promising treatment for children with autistic disorder ([Malone, Cater, Sheikh, Choudhury, & Delaney, 2001](#)).unlike this study preference of Haloperidol over olanzapine needs further study. The use of typical antipsychotics like Haloperidol in appropriate doses can make some children with behavior disorders more obedient and easy to manage since disobedience, resentment, and aggression towards adults are reduced On the negative side, some slowdown in skilled motor tasks and possibly in processing information might result in a slower rate of work in school ([Cunningham, Pillai, & Rogers, 1968](#)).

The antidepressant was another psychotropic medication used in 25.6% of children. This psychotropic especially tricyclic antidepressant TCA medication from the most frequently

prescribed more than half for the diagnosis of Attention-deficiency hyperactive disorder. Unlike a developed country or study was done in Botswana where stimulant was the most frequently prescribed for ADHD. In Nigeria, stimulant psychotropic is the least prescribed medication ([Bakare et al., 2011](#)),([Olashore et al., 2017](#)). Food and Drug Administration (FDA) approval for the treatment of youth with ADHD are stimulants but in countries like Ethiopia due to the availability and cost of the medication, we use an anti-depressant. TCAs especially imipramine have data supporting their use in ADHD but are used infrequently as they have a much more serious side effect profile([Sadock, Sadock, & Kaplan, 2009](#)).

In the present study, Antipsychotic drugs were the most prescribed psychotropic, drug and the most commonly ordered medication is risperidone. This result is similar to the study done on prescriptions of psychotropic medications among patients with new-onset psychotic symptoms in Denmark (17).

Another similar result to this study was the study done on the Prescription pattern of psychotropic drugs in Shambu general hospital. It showed that the most commonly prescribed categories of medications were antipsychotic and tricyclic antidepressants. Among the individual drugs, the most commonly prescribed antidepressant was tricyclic antidepressants (Amitriptyline was the most frequently ordered and followed by the Selective Serotonin Reuptake Inhibitors fluoxetine (24). And similar to this study the most commonly prescribed anti-psychotic, was chlorpromazine (24).

The study of psychotropic drug prescription in psychiatric patients is important since the initial treatment selected is of significance for therapeutic success and patient compliance. Therefore, treatment should be carefully chosen by weighing the relative risks and benefits of different therapeutic regimens based on an evaluation of the condition of the patient and the need for patient-specific treatment.

It is also very important to track the number of drugs prescribed per prescription as it is an important indicator of polypharmacy (53). In this study, most of the prescriptions (51.8%) were observed to contain one drug. Only 17.8% of the patients received 3 or more drugs. This finding was not congruent in the literature.

The average number of drugs prescribed per encounter was 1.8. This result is consistent with the WHO, recommendations for prescription in which prescription should contain an average of less than or equal to two drugs (25). When the number of drugs per prescription increases, the full information needed for a particular medication may be lost due to lack of space, and this may lead to medication error.

The other issues were, that prescribers should be to be familiar with the pharmaceutical dosage form and quantity of the commonly used medications. So, they can remain attentive to the actual prescriptions

7. Conclusion

In the present study, antipsychotic drugs were the most prescribed psychotropic drug, followed by antidepressant drugs. There is also moderate use of mood stabilizers and antiepileptic drugs. Risperidone was the most frequently prescribed drug among second-generation antipsychotics and fluoxetine was the most frequently prescribed class of antidepressants. The finding also indicates that

51.8% of the prescription was single drug and 38.3% of them were less than 10mg in dosage.

8. Recommendation

Improving medical record completeness services is an important step toward improving the quality of healthcare. Complete information on the medical record is very important for follow-up of the patient's status and the drug events. So, the prescribers should document the data of all patients, prescribed drugs, and their information Identification I, soon managing problems related to the prescription of psychotropic medication is the common duty of all health professionals. So, interdisciplinary communication should be improved among them.

Overall, it is important for physicians or prescribers to understand how to accurately prescribe psychotropic medications, especially antipsychotics, and to know their mechanism of action, as they can be efficacious in treating many of the wide range of psychiatric disorders that are frequently encountered in their practices.

Transference

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6. Occupation: Student

Unemployed

Works for a living. Specify _____

Information not available

7. Living arrangement: Living with primary family

Living with relatives

Living with non-relatives

Living in an institution. Specify _____

Information not available

Part II: Clinical Data

Hospital card number: _ _ _ _ _

Diagnosis (can tick multiple boxes)

1. Initial diagnosis

Autism Spectrum Disorder. Write down specifier _____

Intellectual disability. Write down specified _____

Attention deficit hyperactivity disorder

Schizophrenia spectrum and other psychotic disorder. Specify _____ Depressive disorder. Specify _____

Anxiety disorder. Specify _____

Somatic symptom and related disorder. . Specify _____

Disruptive, impulsive- control, and conduct disorder. Specify _____

Bipolar and related disorder. Specify _____

Sleep - wake disorder. Specify _____

Epilepsy

Other Medical diagnosis. Specify _____

Other psychiatric diagnosis. Specify _____

Information not available

2.2. Diagnosis changes throughout follow up period

Autism Spectrum Disorder. Specified _____

Intellectual disability. Specified _____

Attention deficit hyperactivity disorder

Schizophrenia spectrum and other psychotic disorder. Specify _____

Depressive disorder. Specify _____

Anxiety disorder. Specify _____

Somatic symptom and related disorder. . Specify _____

Disruptive, impulsive- control, and conduct disorder. Specify _____

Bipolar and related disorder. Specify _____

Sleep - wake disorder. Specify _____

Epilepsy

Other Medical diagnosis. Specify _____

Other psychiatric diagnosis. Specify _____

Information not available

2.3. Current working diagnosis

Autism Spectrum Disorder. Write down specified _____

Intellectual disability. Write down specified _____

Attention deficit hyperactivity disorder

Schizophrenia spectrum and other psychotic disorders. Specify _____

Depressive disorder. Specify _____

Anxiety disorder. Specify _____

Somatic symptom and related disorder. .

Specify _____ disruptiveivee, impulsive- control, and conduct disorder. Specify

Bipolar and related disorder. Specify _____

Sleep - wake disorder. Specify _____

Epilepsy

Other Medical diagnosis. Specify _____

Other psychiatric diagnosis. Specify _____

Information not available

3. Treatment provided

Non-pharmacological. Specify _____

Pharmacological

Non-psychotropic

Psychotropic

4. Psychotropic medication detail

No	Name of medication	Indication	Start date*	Stop date* if not the current treatment	Lowest dosage# prescribed for the patient	Highest dosage# prescribed for the patient
1						
2						
3						
4						
5						

* DD - MM - YYYY in Ethiopian Calendar

Number and unit

N/A: Information not available